Applicability (§761.1(b))

- ***Regulatory Provisions***
  - Three forms of PCBs:
    - Liquid PCBs
    - Non-liquid PCBs
    - Multiphasic (combinations of liquid and/or non-liquid)
  - To determine PCB concentrations
    - Liquid PCBs- wet weight
    - Non-liquid PCBs- dry weight
    - Multiphasic- as appropriate to each separated phase

PCB Concentration Assumptions for Use

(§761.2)

- ***Regulatory Provisions***
  - PCB Transformers
    - < 3 lbs. of fluid: assume < 50 ppm
    - Dry (non-liquid filled): assume <50 ppm
    - Manufactured < 7/2/79, > 3 lbs. fluid (not MODEF), & concentration not established: assume > 500 ppm
    - Date of manufacture and type of fluid unknown: assume > 500 ppm

PCB Concentration Assumptions for Use (continued) (§761.2)

- ***Regulatory Provisions***
  - PCB-Contaminated Transformers
    - MODEF, manufactured < 7/2/79, & concentration unknown: assume 50-499 ppm
    - Pole top and pad-mount distribution transformers manufactured < 7/2/79: assume 50-499 ppm
    - MODEF & date of manufacture unknown: assume 50-499 ppm
    - All electrical equipment manufactured > 7/2/79: assume non-PCB
  - Capacitors
    - Assume all are > 500 ppm if concentration unknown unless manufactured > 7/2/79

Use of Sewage Sludge (§761.20(a)(4))

- ***Regulatory Provisions***
  - You may land apply (use) sewage sludge
    - from treatment of domestic sewage
    - containing <50 ppm PCBs
    - as allowed under RCRA or CWA
  - You may not
    - use PCB sewage sludge (≥50 ppm)
    - blend or dilute PCBs into sludge
    - dispose of regulated PCBs into treatment works
- ***Process***
  - You do not need a TSCA approval

Processing and Distribution for Disposal

(§761.20(c))

- ***Regulatory Provisions***
  - You need an approval to process PCBs:
    - for treatment
    - for disposal (exceptions below)
    - to meet a disposal concentration
  - You do not need an approval to process PCBs:
    - for storage or transportation
    - for self-implementing disposal of remediation waste or self-implementing decontamination
    - as specifically allowed under subpart D
- ***Process***
  - To request an approval, contact the Regional Administrator for the region in which the activity will occur

Distribution in Commerce After Decontamination (§761.20(c)(5))

- ***Regulatory Provisions***
  - You may distribute in commerce PCB materials cleaned up in accordance with
    - TSCA disposal approval
    - decontamination standards and procedures in §761.79
    - spill cleanup policies
- ***Process***
  - You do not need a TSCA approval

Authorizations - Electrical Uses (§761.30)

- ***Regulatory Provisions***
  - Transformer registration (761.30(a)(1)(vi)(A))
    - Units known or assumed > 500 ppm by 12/28/98
    - Use of form 7720-12 (pg. 35430)
  - Voltage Regulators > 500 ppm (761.30(h)(1)(ii))
    - Mark location
    - Report fire related incidents
    - Inspect
    - Recordkeeping
  - Rectifiers (761.30(r))
    - Authorized continued use
    - Service with < 50 ppm fluid

Definition of Natural Gas Pipeline System (§761.3)

- ***Definition:***
  - Natural gas pipeline system means natural gas gathering facilities, natural gas pipe, natural gas compressors, natural gas storage facilities, and natural gas pipeline appurtenances (including instrumentation and vessels directly in contact with transported natural gas such as valves, regulators, drips, separators, etc., but not including air compressors).
- ***Air compressors have been excluded from the definition of "natural gas pipeline systems" as they are not unique to the natural gas pipeline industry.***

Overview (§761.30(i))

- ***Use and Reuse of PCBs in Natural Gas Pipeline Systems; Use and Reuse of PCB-Contaminated Natural Gas Pipe and Appurtenances***
  - Use of existing PCBs in natural gas pipeline systems
  - Reuse of PCB-Contaminated pipe and appurtenances in natural gas pipeline systems
  - Other uses of PCB-Contaminated natural gas pipe removed from system
  - Characterization of PCB-contamination in natural gas pipeline systems
  - Disposal/Use of liquids removed from natural gas pipelines

Existing Uses of PCBs in Natural Gas Pipeline Systems (§761.30(i))

- *<50 ppm*
- *³50 ppm, in natural gas pipeline systems <u>not</u> owned or operated by a seller or distributor of natural gas (e.g., end user)*
- *<u>≥</u>50 ppm, in natural gas pipeline systems owned or operated by a seller or distributor of natural gas, provided certain conditions are met.*

Conditions for the Use of PCBs ≥50ppm By Natural Gas Sellers/Distributors (§761.30(i))

- ***Modifications to requirements may be made by EPA***
- ***Historical data may be used to fulfill certain requirements***
- ***Record keeping***

Natural Gas Pipeline Systems With No Potential Sources of PCB Contamination ≥50ppm (§761.30(i))

- ***Must comply with provisions regarding sampling and analysis for PCBs³50ppm, as well as record keeping***
- ***Are <u>not</u> subject to the requirements for system characterization, sampling/analysis of sources, PCB reduction/removal, and marking***

Reuse of PCB-Contaminated Pipe and Appurtenances (§761.30(i))

- ***Reuse of PCB-Contaminated Pipe and Appurtenances***
  - PCB-Contaminated (≥50 ppm-<500 ppm) natural gas pipe and appurtenances may be reused in a natural gas pipeline system, provided all free-flowing liquids have been removed

Reuse of PCB-Contaminated Pipe and Appurtenances (§761.30(i))

- ***Other Uses of PCB-Contaminated Natural Gas Pipe Removed from the System***
  - PCB-Contaminated natural gas pipe, drained of all free-flowing liquids, may be used:
    - To transport liquids (bulk hydrocarbons, chemicals, petroleum products, or coal slurry)
    - As casing to provide secondary containment protection (protection for electrical cable)
    - As temporary structural material (fence posts, sign posts, or bridge support)
    - As temporary flume at construction sites
    - As equipment skids
    - As culverts under transportation systems in intermittent flow situations
    - For sewage service, with written consent from the POTW
    - For steam service
    - As irrigation systems (<20 inches in diameter) of less than 200 miles in length
    - In totally enclosed air compressor systems

Characterization of PCB-Contamination in Natural Gas Pipeline Systems (§761.30(i)(4))

- Characterization of natural gas pipeline liquids is based on actual PCB concentration at the time of removal, not presumptions or historical data
- Analyze organic liquids collected at existing condensate collection points
- The level of PCB contamination found at a collection point is assumed to extend to the next collection point downstream
- Multi-phasic liquids must be characterized in accordance with §761.1 (b) (4)

Disposal/Use of Liquids Removed from Natural Gas Pipeline Systems (§761.30(i)(5))

- Dispose of liquids containing PCBs ≥50 ppm removed, spilled or otherwise released from a natural gas pipeline in accordance with applicable provisions
- Dispose of material contaminated by spills or other releases of PCBs ≥50 ppm from a natural gas pipeline system in accordance with disposal provisions for PCB remediation waste or decontamination
- Market or burn for energy recovery pipeline liquids containing PCBs <50 ppm in accordance with the used oil provisions at §761.20(e).
  - No other use of pipeline liquids containing PCBs at concentrations ≥2 ppm is authorized

Use For Research & Development (§761.30(j))

- ***Use Authorized for R&D of PCBs for:***
  - Chemical analysis
  - Determination of physical properties
  - Studies of environmental transport processes
  - Studies of biochemical transport processes
  - Studies of effects on the environment
  - Studies of health effects
- ***Use Authorization Does Not Cover Disposal-Related Activities***
- ***Use of PCBs In R&D for Disposal = §761.60(j)***

Use For Research & Development (continued)

- ***Authorization Conditions:***
  - Source: Entities that have been granted an exemption at §761.80
    - PCBs in small quantities for R&D (§§761.80(f), (g) and (i))
    - PCBs (§761.80(i)(4))
    - Analytical reference samples from PCB waste material (§761.80(i))
  - Packaging complies with Hazardous Material Regulations (49 CFR Parts 171-180)
  - Wastes must be stored in compliance with §761.65(b) and disposed per §761.64
  - Manifest requirements apply except when returning unused/residual material to location of collection or storage

Use For Research & Development (continued)

- ***Authorization Conditions:***
  - Source: Entities that have been granted an exemption at §761.80
    - PCBs in small quantities for R&D (§§761.80(f), (g) and (i))
    - PCBs (§761.80(i)(4))
    - Analytical reference samples from PCB waste material (§761.80(i))
  - Packaging complies with Hazardous Material Regulations (49 CFR Parts 171-180)
  - Wastes must be stored in compliance with §761.65(b) and disposed per §761.64
  - Manifest requirements apply except when returning unused/residual material to location of collection or storage

Use of Contaminated Porous Surfaces

(§761.30(p))

- ***Regulatory Provisions***
  - You may use porous surfaces contaminated with liquid PCBs if you:
    - remove the source of contamination
    - clean accessible surfaces
    - cover the surface to prevent release
    - mark the surface
- ***Process***
  - You do not need a TSCA approval

Use in Scientific Instruments (§761.30(k))

- ***Regulatory Provisions***
  - You may use PCBs in scientific instruments, for example
    - in oscillatory flow birefringence instruments
    - in viscoelasticity instruments
    - as microscopy immersion oil
    - as optical liquids
  - You may not manufacture, process, or distribute PCBs in commerce for use in scientific instruments without an exemption.
- ***Process***
  - You do not need a TSCA approval

Definition-- “Air Compressor System” (§761.3)

- ***Air compressor system means air compressors, piping, receiver tanks, volume tanks and bottles, dryers, airlines, and related appurtenances***

Use of PCBs in Air Compressor Systems

(§761.30(s))

- ***Objectives of Section***
  - The use of PCBs in air compressor systems was originally proposed with the use authorization for natural gas pipelines
  - In the final rule, air compressor systems have been separated from natural gas pipelines
- ***Old Requirement***
  - §761.30(i) covered the use of PCBs <50ppm in "compressors" and natural gas pipeline systems
- ***What the Changes Mean to You***
  - Continued use of PCBs ≥50ppm while PCBs are being removed from the system

Use of PCBs in Air Compressor Systems

(§761.30(s))

- ***Use of PCBs in Air Compressor Systems (§761.30(s))***
  - <50 ppm
  - ≥50 ppm
    - All liquids ≥50 ppm PCBs are removed from air compressor crankcase
    - Refill crankcase with non-PCB liquid
    - Decontaminate components contaminated with PCBs ≥50 ppm in accordance with §761.79 or dispose of in accordance with Subpart D of Part 761
    - Decontaminate piping with diameter <2 inches by continuous flushing
      - 4 hours
      - ≥300 gallons per hour

Use of Decontaminated Materials

(§761.30(u))

- ***Regulatory Provisions***
  - You may use PCBs materials cleaned up in accordance with
    - a TSCA disposal approval
    - decontamination standards and procedures in §761.79
    - spill cleanup policies
  - **except** you may not use the materials in direct contact with food, feed, or drinking water
  - You may use water at ≤ 0.5 *u*g/L PCBs without restriction
  - You may use water at <200 *u*g/L PCBs in a closed system with no releases
- ***Process***
  - You do not need a TSCA approval

Storage for Reuse (§761.35)

- ***Outside a § 761.65(b) for less than 5 years***
  - Marking and reporting requirements
- ***Outside a §761.65(b) for 5 years or more***
  - Approval of RA, marking and reporting requirements
- ***Indefinite***
  - §761.65(b), RCRA 3004 and 3006 with no requirements

Marking of Large Low Voltage (LLV) Capacitors (§761.40)

- ***Objective of Section***
  - get all Large PCB Capacitors marked now to prevent improper identification and disposal
- ***Changes***
  - LLV PCB Capacitors must be marked now; not at disposal
- ***Likely Outcome***
  - all Large PCB Capacitors will be marked the same, regardless of high or low voltage

Applicability - General (§761.50(a))

- ***Regulatory Provisions***
  - You may not
    - open burn PCBs
    - turn liquid PCBs into non-liquid PCBs
    - discharge water ≥3 *u*g/L PCBs except under a NPDES permit
  - Spills constitute disposal
  - You may land dispose non-liquid PCBs without sampling if you assume the concentration is ≥500 ppm
  - You are responsible for complying with other laws and regulations

Applicability (§761.50(b))

- ***Regulatory Provisions***
  - PCB liquids
    - dispose (§761.60(a))
    - decontaminate (§761.79)
  - PCB Items
    - intact and non-leaking
      - dispose of as PCB Article (§761.60(b))
      - decontaminate (§761.79)
    - no longer intact and non-leaking
      - treat as PCB bulk product waste (§761.62)
    - fluorescent light ballasts
      - intact and non-leaking small cap (§761.60(b)(2)(ii)
      - PCBs in potting material (§761.62)
  - PCB remediation waste (§761.61)

Applicability - PCB Waste (§761.50(b)) (con't)

- ***Regulatory Provisions***
  - Pre-'78 waste (PCB remediation waste)
    - ≥50 ppm PCBs as found
    - land disposed, spilled, or otherwise released prior to April 18, 1978
  - presumed not to present an unreasonable risk
  - IF RA finds that releases from the site present an unreasonable risk, THEN you must clean the site to reduce the risk
  - Absent action by the RA, you can dispose of pre-'78 waste yourself under §761.61.
- ***Process***
  - RA makes a finding of unreasonable risk, directs a cleanup

Applicability - PCB Waste (§761.50(b)) (con't)

- ***Regulatory Provisions***
  - You must clean up post-'78 PCB remediation waste
    - using the Spill Cleanup Policy (subpart G) or
    - in accordance with §761.61
  - You have the burden of proof as to date of release and spill concentration
  - PCB bulk product waste (§761.62)
    - thermal decontamination of coated metal surfaces (§761.79(c)(6))
  - PCB household waste (§761.63)
  - PCB R&D waste (§761.64)

Applicability - PCB Waste (§761.50(b)) (con't)

- ***Regulatory Provisions***
  - PCB/radioactive waste
    - base disposal on both PCB concentration and radioactive properties
    - if, based solely on PCBs, waste could be non-TSCA land disposed, then you may dispose based on radioactive properties
  - Porous surfaces
    - contaminated by a spill - dispose of under §761.61
    - manufactured non-liquid product - dispose of under §761.62
    - concrete, within 72 hours of spill - decontaminate under §761.79(b)(4)
    - metal with porous coating - decontaminate in a smelter under §761.79(b)(3)

Applicability - PCB Waste (§761.50(c), (d) and (e))

- ***Regulatory Provisions***
  - You must store PCB waste in accordance with §761.65
  - Specifications for disposal technologies
    - incinerators (§761.70)
    - high efficiency boilers (§761.71)
    - scrap metal recovery ovens and smelters (§761.72)
    - chemical waste landfills (§761.75
  - TSCA PCB Coordinated Approval (§761.77)

Disposal Requirements (§761.60(a) & (b))

- ***PCB Liquids***
- ***PCB Articles***

Disposal of liquids 50-499 ppm at TSCA Landfills (761.60(a)(3))

- ***Objective:***
  - end practice of disposal of PCB liquid waste streams, especially 50-499 ppm, in TSCA landfills
- ***Change:***
  - disposal allowance narrowed to incidental liquids, e.g., precip. condensation, leachate
- ***Likely Outcome:***
  - reduce volume of liquid PCBs in landfills

Natural Gas Pipeline Systems Containing PCBs (§761.60(b)(5))

- ***Objectives of Section***
  - To provide disposal options for natural gas pipelines that are applicable to the general population of natural gas pipeline systems
- ***Old Requirement***
  - Prior to the Disposal Amendments, contaminated natural gas pipeline systems were operated under compliance agreements and disposal approvals.
- ***What the Changes Mean to You***
  - New options for disposal that do not require approval
  - Alternate disposal approvals may continue to be used

Natural Gas Pipeline Systems Containing PCBs (§761.60(b)(5))

- ***Pipeline systems containing 50 ppm or more PCBs can be disposed of:***
  - By abandonment in place of the pipe under paragraph (b)(5)(i) of this section or
  - Removal with subsequent action under paragraph (b)(5)(ii) of this section
- ***Characterize PCB concentrations in systems in accordance with paragraph (b)(5)(iii).***
- ***Liquids removed from systems are regulated for disposal at ≥50 and for use at <50 ppm, under the used oil provisions.***

Summary of the Natural Gas Pipe Abandonment Requirements (§761.60(b)(5)(i))

Paragraph	PCB Concentration	Pipe Diameter	Freeflowing Liquids?	Abandon in Place After:
(A)	Any	≤4 inches	No	Sealing ends after either including in a public service notification program or filling 50% with grout or HDPU foam
(B)	<500 ppm	Any	No	Sealing ends
(C)	Any	Any	No	Sealing ends after either decontaminating with solvent and solvent contains <50 ppm PCBs or filling 50% with grout or HDPU foam.
(D)	Any	Any	Possible	Use self implementing decontamination or approved alternative; alternative destruction method; or risk-based disposal approval.

Summary of Natural Gas Removal with Subsequent Action Requirements

(§761.60(b)(5)(ii))

Natural Gas Pipeline System Component	Disposal Options
(1) PCB-Contaminated pipe of any diameter containing no freeflowing liquids ***(2)*** Pipe containing PCBS at any concentration, containing no freeflowing liquids and having a diameter ≤4 inches	***(1)*** Disposal in a State approved municipal/non-municipal solid/non-hazardous waste landfill; ***(2)*** §761.72 scrap metal recovery oven or smelter; or ***(3)*** A disposal facility approved under subpart D
Any component (may contain liquids)	*(1)* In a §761.60 incinerator *(2)* In a §761.75 chemical waste landfill, provided that all free-flowing liquids have been thoroughly drained. *(3)* As PCB remediation waste (§761.61) *(4)* By §761.79 decontamination

Smelting of Natural Gas Pipeline

- §761.79(b)(3)(ii) provides for smelting of natural gas pipeline
- Non-porous substances, such as natural gas pipeline, in contact with liquid PCBs at any concentration and containing no free-flowing liquids may be smelted, in accordance with §761.72(b), provided contamination is <100 : g/100cm^2, as measured by a standard wipe test
- Non-porous substances, such as natural gas pipeline, in contact with non-liquid PCBs may be smelted, in accordance with §761.72(b), provided they have been cleaned to Visual Standard No. 3; the cleaned area shall be visually inspected for compliance with Visual Standard No. 3.
- Smelting of natural gas pipeline is PCB disposal even though the smelted metal may be used or reused.

Characterization of Natural Gas Pipeline Systems (§761.60(b)(5)(iii)

- ***Applies to abandonment and removal***
- ***Analyze organic liquids collected at existing condensate collection points***
- ***The level of contamination found at collection point is assumed to extend to the next collection point downstream***
- ***If no organic liquids are present, collect wipe samples in accordance with Subpart M.***

Characterization of Natural Gas Pipeline Systems (§761.60(b)(5)(iii) (cont.)

- ***Collect samples within 72 hours after the last transmission of gas through the system for abandonment***
- ***Collect samples after the last transmission of gas through the system for disposal***

Disposal/Use of Liquids Removed from Natural Gas Pipeline Systems (§761.60(b)(5)(iv))

- Dispose of liquids containing PCBs ≥50 ppm removed, spilled or otherwise released from a natural gas pipeline in accordance with applicable provisions
- Dispose of material contaminated by spills or other releases of PCBs ≥50 ppm from a natural gas pipeline system in accordance with disposal provisions for PCB remediation waste or decontamination
- Market or burn for energy recovery pipeline liquids containing PCBs <50 ppm in accordance with the used oil provisions at §761.20(e).
  - No other use of pipeline liquids containing PCBs at concentrations ≥2 ppm is authorized

Decontamination of Natural Gas Pipeline

- ***Natural gas pipeline with a thin, porous coating to prevent corrosion is considered a non-porous surface***
  - Definition of a non-porous surface has been revised under §761.3
  - Revised definition allows for decontamination of natural gas pipeline systems as non-porous surfaces under §761.79

Decontamination of Natural Gas Pipelines

(§761.60(b)(5))

- ***Decontamination for abandonment in place of natural gas pipeline of any diameter, containing PCBs at any concentration which:***
  - Contains no free-flowing liquids (§761.60(b)(5)(i)(C)(1))
  - May contain free-flowing liquids (§761.60)(b)(5)(i)(D))
- ***Decontamination for removal with subsequent action of:***
  - Any component of a natural gas pipeline (§761.60(b)(5)(ii)(B))

§761.60(b)(5)(i)(C)(1)

- ***Pipe of any diameter, which contains PCBs at any concentration and no free flowing liquids***
- ***Decontamination procedure:***
  - Decontaminate interior surface with one or more washes of decontamination solvent
  - Use and dispose of decontamination solvents in accordance with §761.79(d)
  - Recover ≥95% of wash
  - Recovered wash must contain <50 ppm PCBs

§761.60(b)(5)(i)(D)

- ***Pipe of any diameter, which contains PCBs at any concentration and may contain free-flowing liquids***
- ***Decontamination options:***
  - Decontamination of non-porous surfaces following the procedures in §761.79(c)(3) or (4)
  - Alternate decontamination approval (§761.79(h))

§761.60(b)(5)(ii)(B)

- ***Any component of a natural gas pipeline, when removed for subsequent action***
  - Decontaminate in accordance with appropriate provisions in §761.79
    - §761.79(b)(3)
      - Decontamination standards for non-porous surfaces in contact with liquid and non-liquid PCBs
    - §761.79(c)(3) or (4)
      - Decontamination standards for non-porous surfaces
    - §761.79(h)
      - Alternate decontamination approval (§761.79(h))

Self-Implementing Requirements for Research and Development for PCB Disposal (§761.60(j))

- ***Objectives***
- ***Impacts***

Disposal of PCB Remediation Waste (§761.61)

- ***Objectives of Section***
  - Increase clean up and disposal options for PCB remediation waste
- ***Changes***
  - Applicability less restrictive and establishes guidelines not requirements
- ***Likely Outcome and/or Impacts***
  - Risk based on a higher RFD
  - Less intensive sampling
  - Increase in number of risk-based approval applications

Self-Implementing On-Site Cleanup and Disposal (§761.61(a))

- ***Applicability***
- ***Site characterization***
- ***Notification and certification***
- ***Cleanup levels***
- ***Site cleanup***
- ***Cleanup verification***
- ***Cap requirements***
- ***Deed restrictions for caps, fences, low occupancy areas***
- ***Recordkeeping***

Applicability (§761.61(a)(1))

- ***Intended to address moderate sized sites***
- ***Can be applied to any size site***
- ***Other procedures may be approved through §761.61(c)***
- ***Cannot be used if the site results in exposure to food, feed, water, sewers, sewage treatment systems or sediments in marine or freshwater ecosystems***
- ***Not binding to cleanups conducted by EPA under other authorities***

Site Characterization (§761.61(a)(2)

- ***Characterize the site adequately to be able to provide data required by §761.61(a)(3)***
- ***Subpart N provides a characterization method for:***
  - Collecting new site characterization data
  - Assessing the sufficiency of existing data

Notification and Certification (§761.61(a)(3))

- ***³ 30 days before cleanup, notify the RA, State/tribal EPA, and county/local EPA***
- ***RA must respond within £ 30 days***
- ***Changes in cleanup activities must be submitted within 14 days before implementation***
- ***Waivers of notification requirement may be granted***

Cleanup Levels (§761.61(a)(4))

- ***Levels depend on the type of waste and location of disposal***
  - (i) Bulk PCB remediation waste and (iii) porous surfaces
    - High occupancy area
    - Low occupancy area
  - (ii) Non-porous surfaces
  - (iv) Liquids
  - (v) Change in land use for low occupancy areas
  - (vi) Cleanup of more sensitive sites

Site Cleanup (§761.61(a)(5))

- ***Existing approved PCB disposal technologies may be used***
  - (i) Bulk remediation waste and (iii) porous surfaces
    - On-site soil washing, may not require approval
    - Off-site decontamination followed by on-site disposal
  - (ii) Non-porous surfaces
    - <100 µg/100 cm^2 disposed as <50 ppm bulk waste
    - ≥100 µg/100 cm^2 disposed as ≥50 ppm bulk waste
  - (iv) Liquids decontaminate or dispose in accordance with §761.61(b) or (c)
  - (v) Disposal of cleanup wastes
  - Subpart K does not apply to this non-liquid waste
  - Solvent, abrasive, and equipment decontamination

Cleanup Verification(§761.61(a)(6))

- ***Sampling and analysis procedures for bulk waste***
- ***Liquid sampling and analysis***
- ***Field screening tests for interim cleanup may be used***
- ***Samples must be lower than levels required in §761.61(a)(4)***

Cap Requirements (§761.61(a)(7)

- ***Definition***
- ***Construction requirements***
- ***Performance specifications***
- ***Thickness***
- ***Maintenance***

Deed Restrictions (§761.61(a)(8)

- *Patterned after RCRA*
- *Record a notation on the deed*
- *Certify to EPA that the filing is in accordance with requirements*
- *Site can be recleaned to remove deed restriction*

Disposal of PCB Bulk Product Waste (§761.62)

- ***Objectives of Section***
  - Provide for disposal of large volume non-liquid waste and metal recovery/recycling
  - Allow use of State approved landfills
- ***Changes***
  - No TCLP test
  - Allows disposal of some wastes based on previous data
  - Some notification and recordkeeping required
  - Risk-based approvals

Disposal of PCB Bulk Product Waste (§761.62)

- ***Likely Outcome and/or Impacts***
  - Increase in risk-based approvals
  - Perceived loss of business by approved disposers

Disposal in Solid Waste Landfills (§761.62(b))

- ***(1) Dispose in State-approved municipal or non-municipal hazardous waste landfill:***
  - Plastics, rubber, building demolition debris, auto shredder waste (fluff), etc.
  - Other waste which leaches <10 μg PCBs/liter water in a leach simulation test

Disposal in Solid Waste Landfills (continued)

(§761.62(b))

- ***(2) Other non-liquids (e.g., paper or felt gaskets) shall be disposed in a facility that is permitted, licensed, or registered by a State to manage municipal solid waste subject to 40 CFR 258 of this chapter or non-municipal non-hazardous waste subject to 40 CFR 257.5-257.30, if:***
  - PCB waste is segregated for organic liquids disposed in the landfill
  - Leachate is collected at the landfill and monitored for PCBs

Disposal in Solid Waste Landfills (continued)

(§761.62(b))

- ***(4) Disposal at a facility not having a TSCA storage or disposal approval requires notification 15 days in advance of the first waste shipment from the same disposal stream***
- ***Notification varies based on whether the waste is a (b)(1) or (b)(2) waste***

Disposal in Solid Waste Landfills (continued)

(§761.62(b))

- ***(3) Any release from the landfill is cleaned up and disposed as PCB remediation waste***
- ***(5) Keep records of analyses and notifications for 3 years from the date of waste generation***
- ***(6) Marking and manifesting are not required***

PCB Household Waste (§§761.3, 761.63)

- ***What Is It?***
  - PCB waste generated by residents on premises of temporary or permanent residences
  - Material generated by consumers in their homes
    - Household items, appliances, and parts
    - Vehicles (non-commercial)
    - PCB waste from routine household maintenance

PCB Household Waste (§§761.3, 761.63)

- ***Wastes Not Covered by Exclusion***
  - Wastes from commercial office buildings
  - Debris from construction, demolition, and renovation activities
  - Industrial or heavy duty equipment containing PCBs
  - Bulk or commingled liquid PCBs ≥50 parts per million

PCB Household Waste (§§761.3, 761.63)

- ***Regulatory Provisions***
  - Waste is not subject to other PCB requirements when managed:
    - In a facility permitted, licensed or registered by a State to manage municipal or industrial solid waste
    - In a facility with an approval to dispose of PCB bulk product waste under §761.62(c)
  - Must not be mixed with PCB waste if stored in a PCB waste storage unit

Disposal of Analysis Waste (§761.64)

- ***Objectives***
- ***Changes***
- ***Impacts***

Storage for Disposal (§761.65)

- ***Regulatory Provisions***
  - Storage for Disposal - One year storage for disposal
    - Storage Limitations
      - 1 year from the date PCBs were removed from service for disposal
      - extensions to the one year storage for disposal requirement
        - » one year
        - » more than one year

Storage for Disposal (§761.65)

- ***Regulatory Provisions***
  - Storage for Disposal
    - Storage Limitations for Radioactive/PCB waste (a)(1)
      - Exempt from the 1 year storage for disposal requirement

Storage for Disposal (§761.65)

- ***Regulatory Provisions***
  - Storage for Disposal - Facilities
    - Storage Facilities
      - Permitted by EPA under Section 3004 of the Resource Conservation and Recovery Act (RCRA)
      - Qualifies for interim status under Section 3005 of the RCRA
      - Permitted by a State authorized under Section 3006 of the RCRA
      - Approved or otherwise regulated pursuant to a State PCB waste management program
      - Subject to a TSCA Coordinated approval
      - TSCA PCB waste management approval

DOT Container Standards §761.65(c)(6)

- ***Objective:***
  - Update regulations to reflect new DOT Hazardous Materials Regulations
- ***Change:***
  - EPA regs. defer to new DOT containers
  - old drums may continue to be used for non-DOT purposes (e.g., storage)
- ***Likely Outcome:***
  - Less potential conflict with DOT regs.

Scrap Metal Recovery Ovens and Smelters (formerly Industrial Furnaces) (§761.72)

- ***Objectives of Section***
  - Prevent open burning of regulated electrical equipment
  - Allow use of new and existing disposal units and technologies
  - Offer an application process for proposed alternatives
- ***Changes***
  - Metal recovery furnaces added and clarified that disposal was for metal recovery
  - Restricted to drained contaminated articles
  - Moved from §761.60(a)(4) to §761.72
- ***Likely Outcome and/or Impacts***
  - Complaints by operators, disposal companies

Scrap Metal Recovery Ovens and Smelters

(§761.72)

- ***Introduction***
- ***Scrap Metal Recovery Ovens***
- ***Smelters***
- ***Permits, Notification, and Alternatives***
- ***Prohibition on Burning Liquids***

Introduction (§761.72)

- *Cites applicable sections and paragraphs*
- *Clarifies that section only applies to disposal of drained contaminated articles*

Scrap Metal Recovery Ovens (§761.72(a))

- ***(1) Two enclosed (negative draft, no fugitive emissions), interconnected chambers***
- ***(2) Waste is placed in the primary 1^0 chamber at room temperature***
- ***(3) and (4) Operating parameters of the 1^0 and secondary 2^0 chambers***
- ***(5) Heating of the 1^0 chamber starts when the 2^0 chamber is at operating temperature***
- ***(6) Continuous emissions monitors installed and operating when chambers are operating***

Scrap Metal Recovery Ovens (continued)

- *(7) and (8) Exhaust stack gas emissions limits*
- *(9) 2^0 chamber temperature measurements and recordkeeping*

Operating Parameters of the 1 and 2 Chambers (§761.72(a)(3) and (4))

- ***(3) Establishes chamber temperature and retention time requirements for 1^0 chamber***
- ***(4) Establishes temperature and retention time, and combustion efficiency in 2^0 chamber for heated gases from 1^0 chamber***

Continuous Emissions Monitors and Exhaust Stack Gas Emissions Limits

(§761.72(a)(6) - (8))

- ***(6) Continuous emissions monitors and recorders for CO_2, CO, and excess O_2 and continuous temperature recorders in both chambers***
- ***(7) Emissions from 2^0 chamber vented***
- ***(8) Exhaust stack gas emissions limits for particulates, SO_2, NO_x, CO, and HCL***

Smelters (§761.72(b))

- *(1) Operating temperature at the time of a charge*
- *(2) Waste can only be added into molten metal or 1000 ^{0}C*
- *(3) Minimum time between addition of charges*
- *(4) Operation in accordance with 40 CFR part 60 (air emission standards)*
- *(5) Operational temperature measuring device*
- *(6) Measurements recording and recordkeeping (3 years)*

Permits, Notification, and Alternatives

(§761.72(c))

- ***(1) Requires an air permit under 40 CFR part 266 subpart H and 40 CFR 270.66 or a State air emission permit which includes a PCB standard***
- ***(2) Must notify, no annual reports required, all other recordkeeping in §761 Subpart J required***
- ***(3) Provides for an application to the RA for risk-based, alternative disposal***

Coordinated Approval Provisions (§761.77)

- ***Regulatory Provisions***
  - Can be granted at facilities that
    - Incinerate PCBs
    - Landfill PCBs
    - Dispose of PCBs
    - Store PCBs
    - Develop PCB Research and Development Disposal Methods
    - Conduct Remediation Activities
- ***Process***
  - Submit to RA
    - Concurrent with other applications
    - After issuance of the other waste management document

Decontamination (§761.79)

- ***Objectives of Section***
  - Specifies decontamination standards and procedures for removing PCBs that are regulated for disposal from water, organic liquids, non-porous surfaces, concrete, and certain specified porous surfaces.
  - Also establishes specific measurement based and self-implementing decontamination standards
  - Also establishes procedures for alternative decontamination and sampling approvals
- ***Changes from Proposal/Response to Comments***
  - Final rule includes distillation of PCBs from contaminated solvents

Decontamination (§761.79)

- ***Likely Outcome and/or Impacts***
  - Reduces the need for disposal approvals for some types of decontaminated materials
  - Decontaminated materials can be used, reused, or distributed in commerce

Decontamination Standards and Procedures (§761.79)

- ***For removal of PCBs from:***
  - water
  - organic liquids
  - non-porous surfaces
  - concrete
  - non-porous surfaces covered with porous surface (e.g., paint/coating on metal)

Decontamination Standards and Procedures (§761.79)

- ***PCB disposal approvals no longer needed for decontaminating these materials, in accordance with the standards in §761.79, by the following methods:***
  - chopping, including wire chopping
  - distillation
  - filtration
  - oil/water separation
  - spraying
  - soaking
  - wiping
  - stripping of insulation
  - scraping
  - scarification
  - use of solvents or abrasives

Decontaminated Materials (§761.79)

- ***Materials decontaminated in accordance with §761.79 can be:***
  - Distributed in commerce per §761.20(c)(5) conditions
  - Used or reused as specified in §761.30(u)
  - Disposed of in a non-TSCA facility (except for some wastes from decontamination)

Measurement-Based Decontamination Standards (§761.79(b))

- ***Water***
- ***Organic Liquids and Non-Aqueous Liquids Containing PCBs***
- ***Non-Porous Surfaces in Unrestricted Use***
- ***Non-Porous Surfaces Smelted in Industrial Furnaces***
- ***Concrete Within 72 Hours of a Spill***
- ***Confirmatory Sampling and Records Required***

Self-Implementing Decontamination Standards (§761.79(c))

- ***Serve as an alternative to measurement-based standards***
- ***Performance-based procedures specified:***
  - Containers
  - Movable equipment
  - Non-porous surfaces in contact with mineral oil dielectric fluid (MODEF) at

    ≤10,000 ppm

    >10,000 ppm
  - Piping and air lines in air compressor systems
  - Metals decontaminated by thermal processes
- ***No confirmatory sampling, but records still required***

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  - Metals decontaminated by thermal processes
- ***No confirmatory sampling, but records still required***

Decontamination of Piping and Air Lines in Air Compressor Systems (§761.79(c)(5))

- ***Decontaminate in accordance with §761.79(c)5)***
  - Disconnect air compressors and air dryers
  - Decontaminate air compressors and air dryers separately in accordance with §761.79(b),(c)(1)-(4) or (c)6)
  - Dispose of filter media and desiccant based on existing PCB concentration
  - Test connecting line and appurtenances for leakage
  - Fill piping and air lines with clean solvent
  - Circulate and drain solvent
  - Refill system with clean solvent and repeat circulation and drainage process.

Decontamination Solvents (§761.79(d))

- ***Solvent solubility of 5% or more by weight unless otherwise specified***
- ***Solvents may be reused until concentration reaches 50 ppm***
- ***EPA tested performance based decontamination fluids (PODFs) listed in §761.79(c)***
- ***Other PODFs and other chemical formulations or trademarked products may be used if tested and validated per 761 Subpart T***

Decontamination Wastes and Residues

(§761.79(g))

- ***Chlorinated solvents disposed of in TSCA incinerator or decontaminated***
- ***Hydrocarbon solvents <50 ppm PCBs burned as used oil or decontaminated***
- ***Other solvents >50 ppm PCBs disposed of as PCB liquids under §761.60(a) or decontaminated***
- ***Distillation bottoms and residues disposed of based on existing concentration***
- ***Other PCBs physically separated from wastes in operations other than solvent rinsing/soaking must be disposed of based on original PCB concentration***
- ***All non-liquid cleaning materials and personnel protective equipment disposed of as PCB remediation clean-up wastes***

Alternative Decontamination or Sampling Approvals

- ***Written application to EPA Regional Administrator for decontamination or sampling methods not otherwise specified***
- ***Elements of application specified; additional information may be requested***
- ***EPA issues written decision on each application***
- ***Approval standard is no unreasonable risk***

Class Exemption §761.80(i)

- ***Objective:***
  - Ease regulatory burden on analytical standards
- ***Change:***
  - manufacturing, import & export allowed by class exemption
  - standards derived from waste included
  - quantities increased to 500 grams
- ***Likely Outcome:***
  - regulatory impact on R&D work decreased

Class Exemption for On-Site Disposal R&D - §761.80(e)

- ***Objective***
  - lessen regulatory burden on development of PCB disposal technologies
- ***Changes:***
  - new class exemption allows manufacture of up to 500 grams/year PCBs for use in on-site disposal R&D
- ***Likely Outcome:***
  - easier to conduct small disposal experiments

Subparts J and K

- ***Regulatory Provisions***
  - 761.180 Records and monitoring
    - Records of inspection & cleanup at storage facilities
    - Records of transfer of PCB Items > 50 ppm for reuse
    - Voltage regulators > 500 ppm recorded like Transformers
    - Disposers who dispose of own waste to submit an annual report
  - 761.205 Notification of PCB waste activity (EPA Form 7710-53)
    - Resubmit form when waste handling activities change

Subparts J and K (continued)

- ***Regulatory Provisions***
  - 761.207 The manifest -- general requirements
    - No manifest for <50 ppm spill material derived from:
    - < 4/18/78 spill of any concentration
    - < 7/2/79 spill < 500 ppm
    - Materials deconned in accordance with 761.79
  - 761.215 Exception reporting
    - Adds 45 day time frame for which exception reports are to be sent to RA
  - 761.218 Certificate of disposal
    - Allows generator and disposer to work out time frame for receipt of CD

Subpart M - Pipeline Sampling (§§761.240-761.257)

1. Cut into 40 foot segments, and number from upstream end.

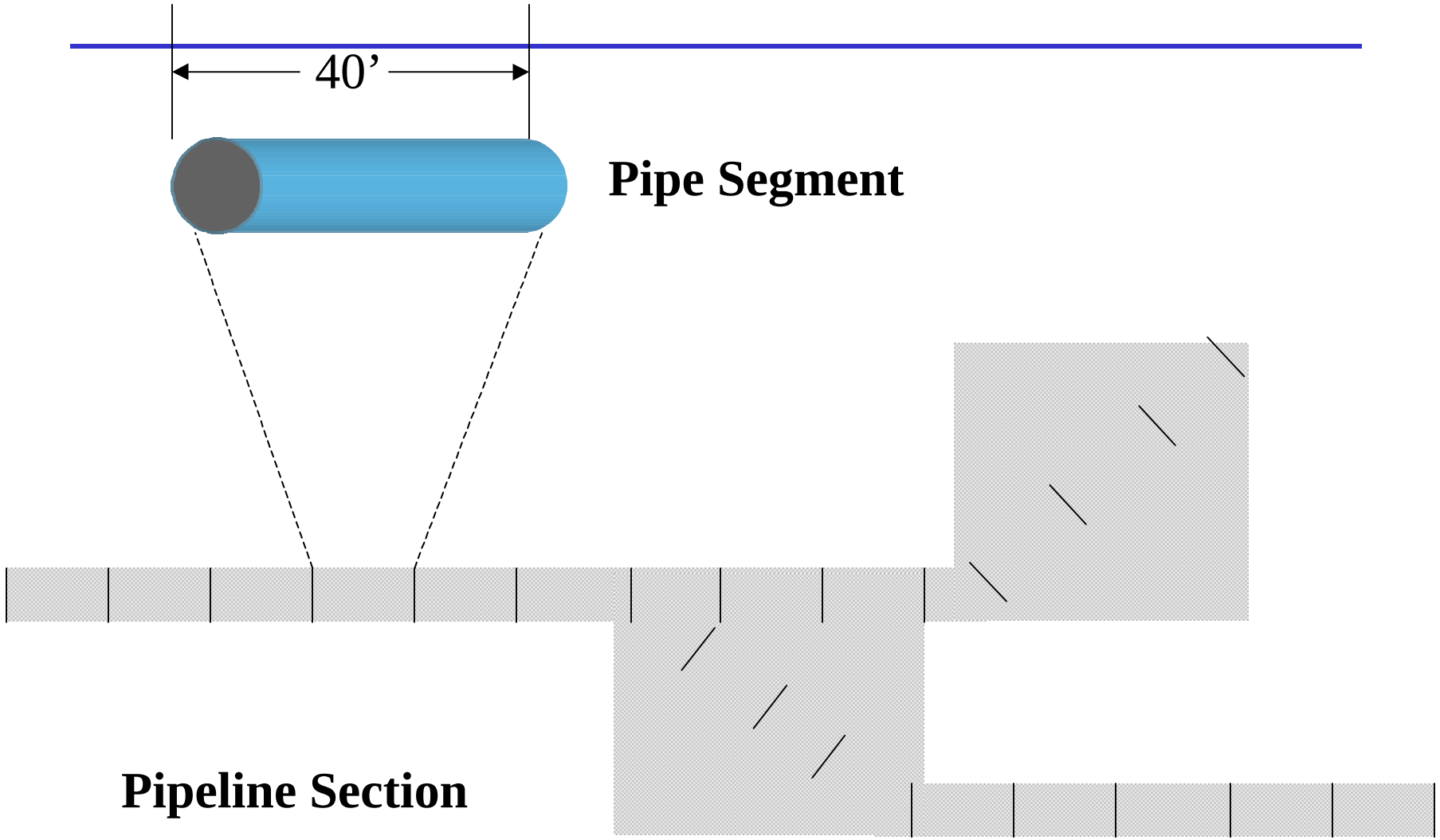
2. Is pipeline section greater than 3 miles long?

   Yes - Sample first segment, and segments every half mile or 66th segment (1, 67, 133, etc.)

   No - Take 7 samples: first segment, last segment, and five interim segments

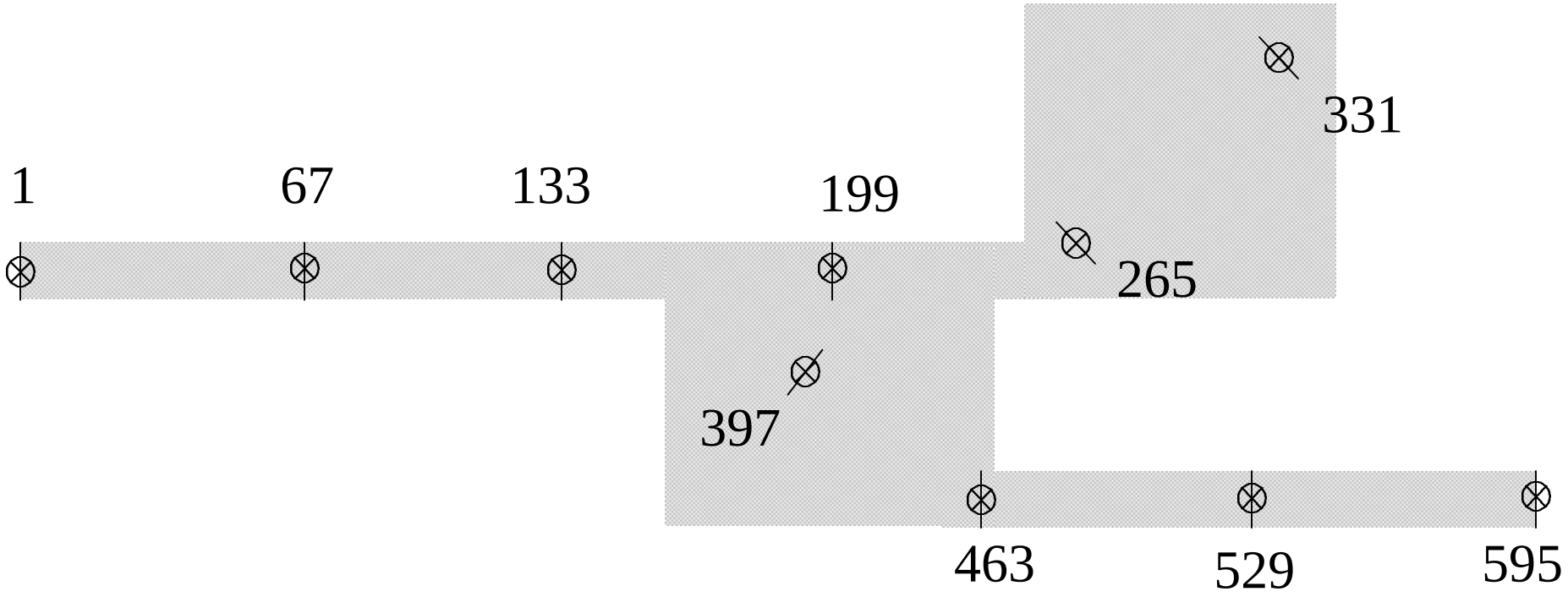
3. Sampling points are on upstream end of segment, inside pipe on bottom

Definition of Pipe Segment and Pipeline Section (§761.240)



Sampling Pipeline Section (longer than 3 miles) (§761.247)

Every half mile, or 66th segment



Sampling Pipeline Section (shorter than 3 miles) (§761.247)

1. Number segments (i.e., 1- 383)
2. Sample first and last segments

3a. Find Sampling Interval

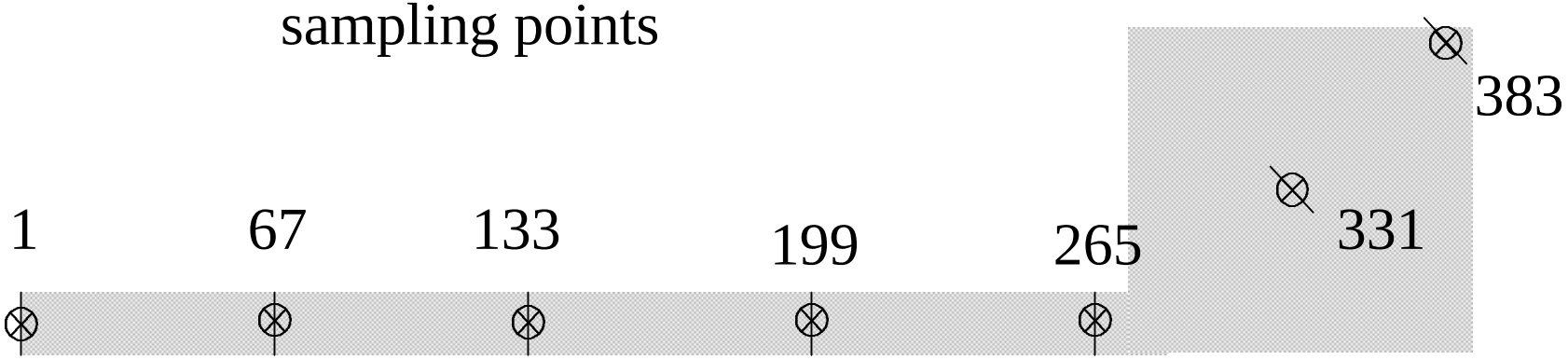
= Total number of segments divided by 6

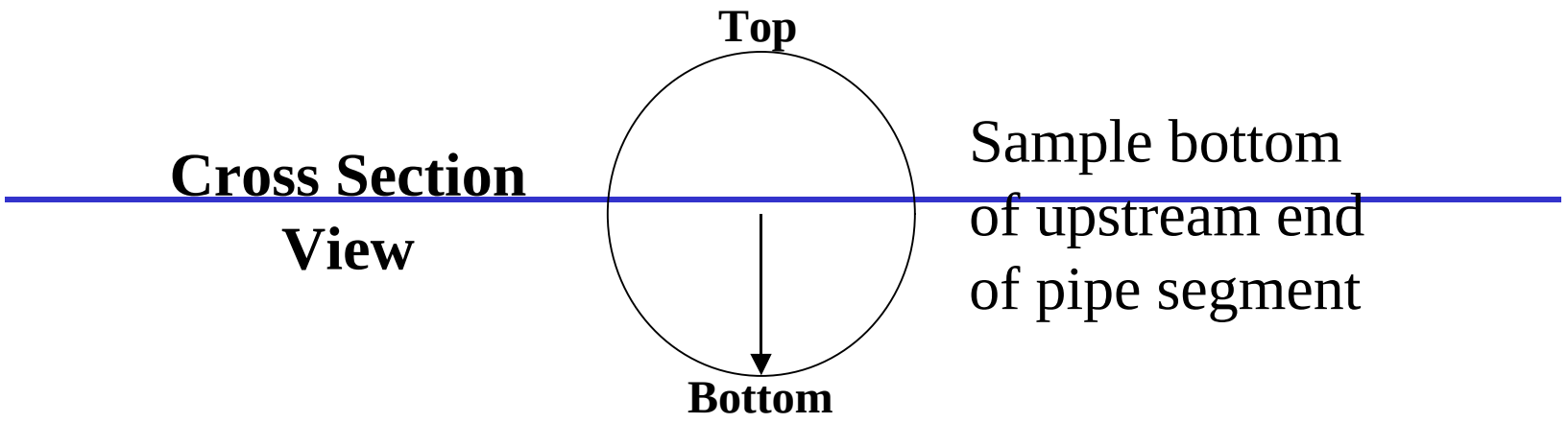
= 383/6 = 63.8 = 64

Take 5 interim samples at sampling intervals (i.e., 65, 133, 199, 265, and 331)

or

3b. Use random number generator to find 5 interim sampling points



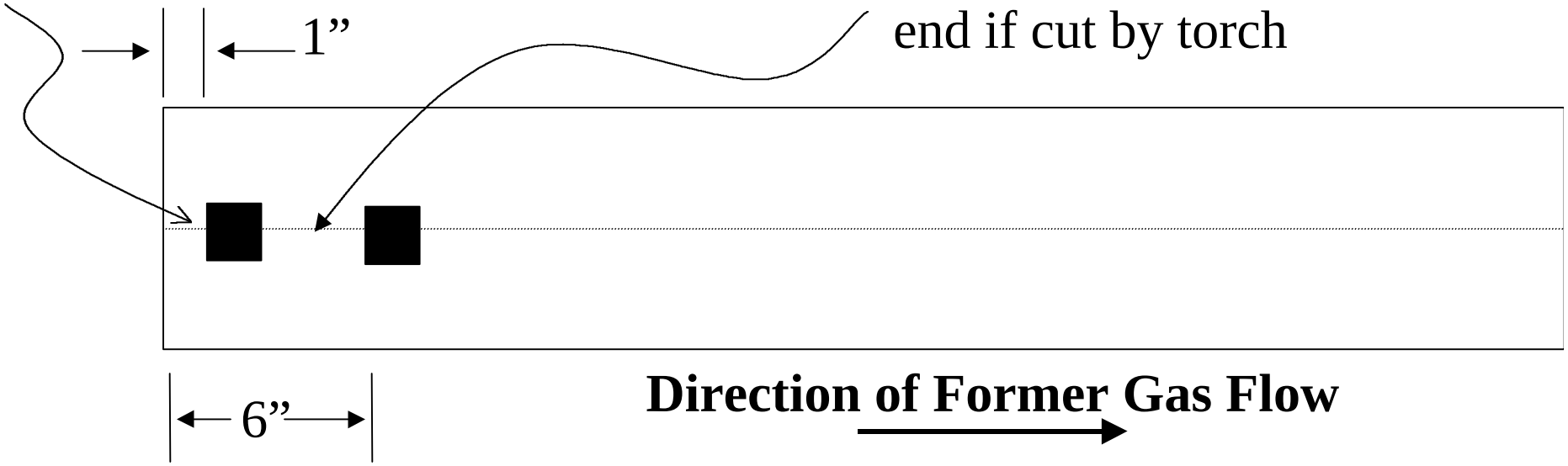


■ Sampling Point

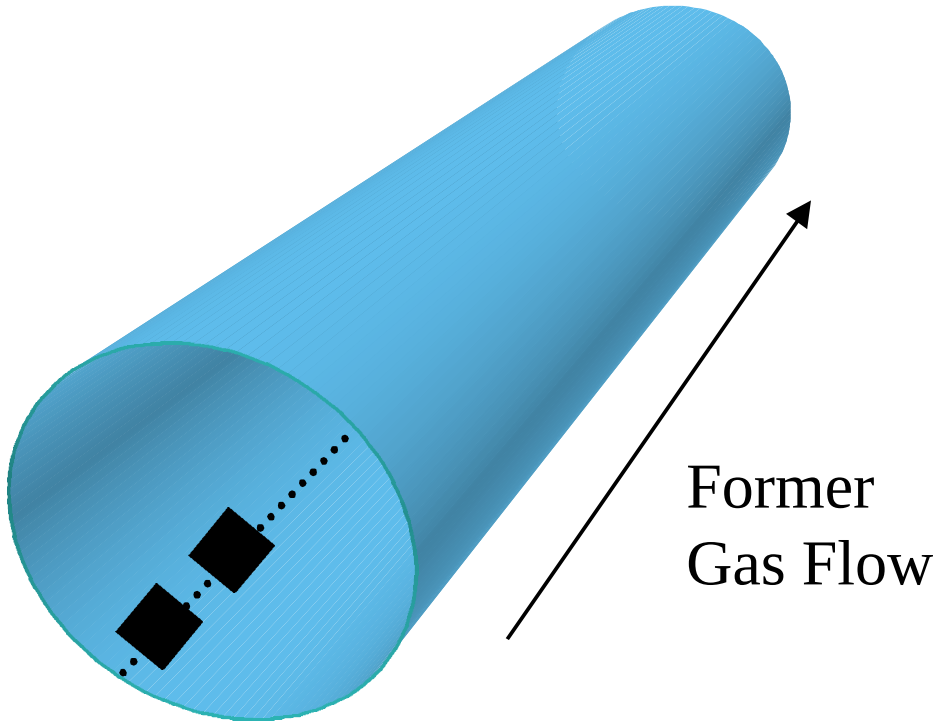
1 inch from upstream end, if cut by saw

Top View

6 inches from upstream end if cut by torch



Three Dimensional View



Sampling Point

Subpart O
Verification Sampling of Self-Implementing Cleanup
(§§761.280 -761.298)

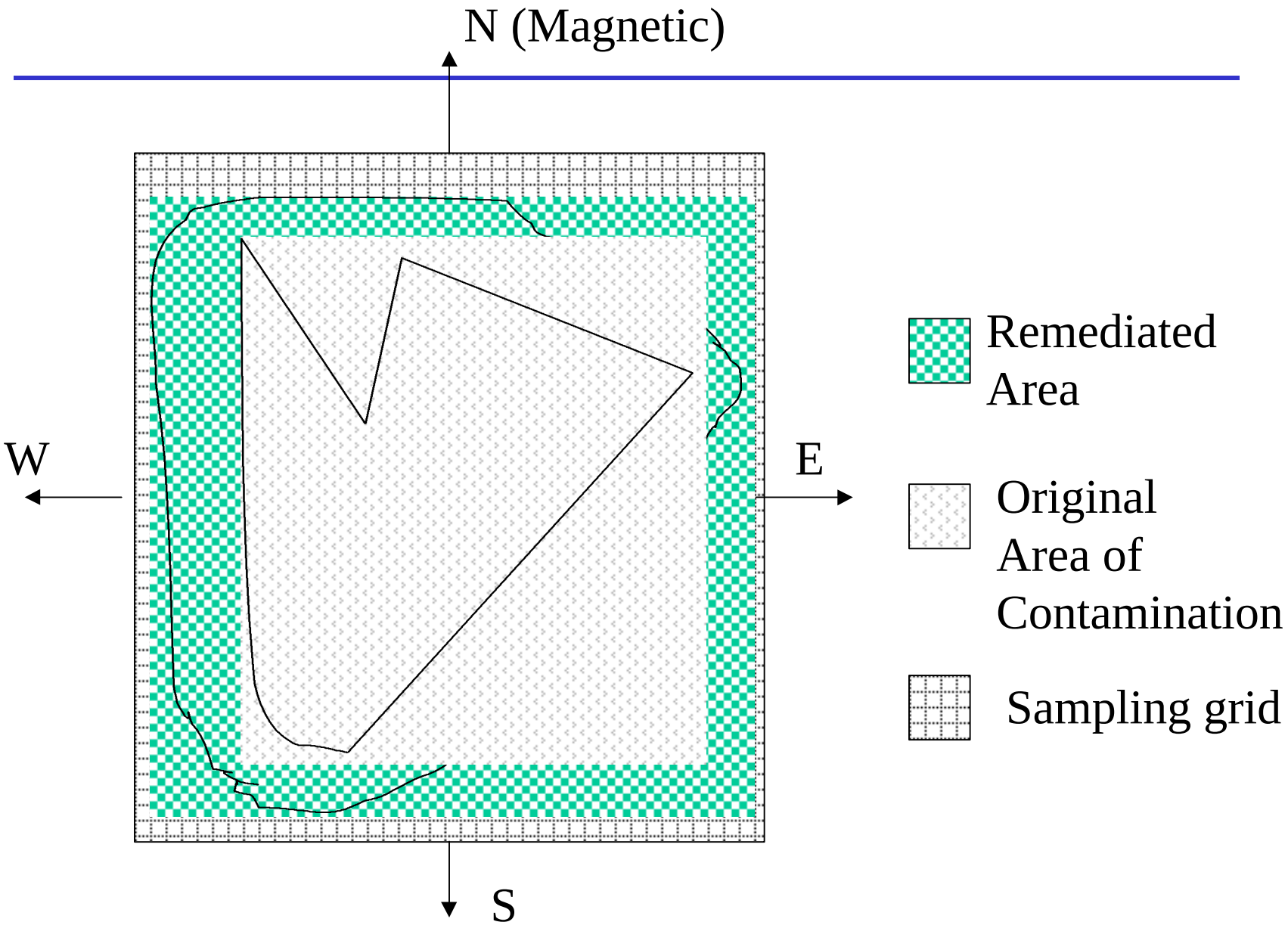
1. Overlay grid oriented on Magnetic N/S/E/W

2. Mark Sampling Points

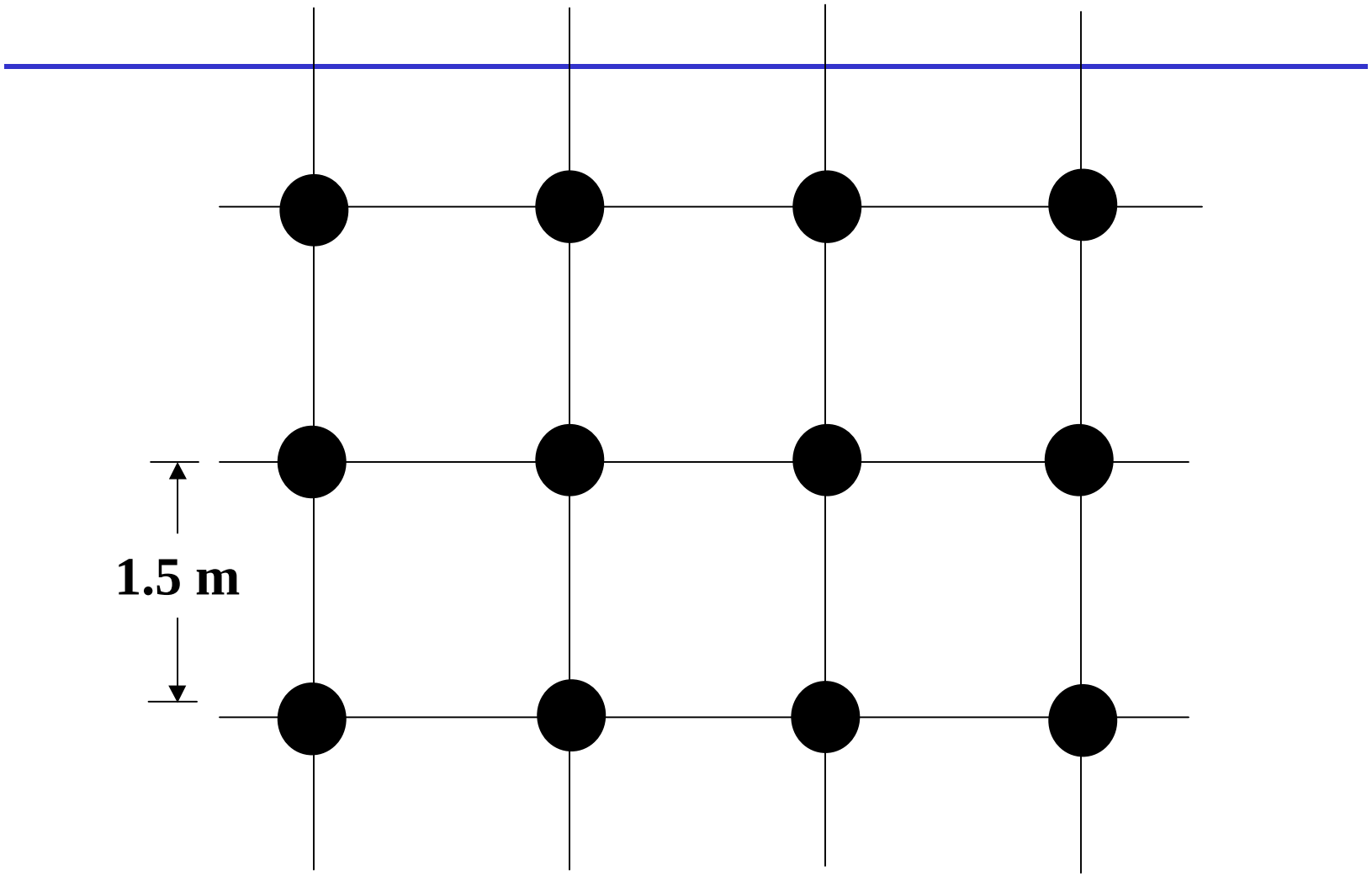
3. Collect Samples

4. Composite Samples

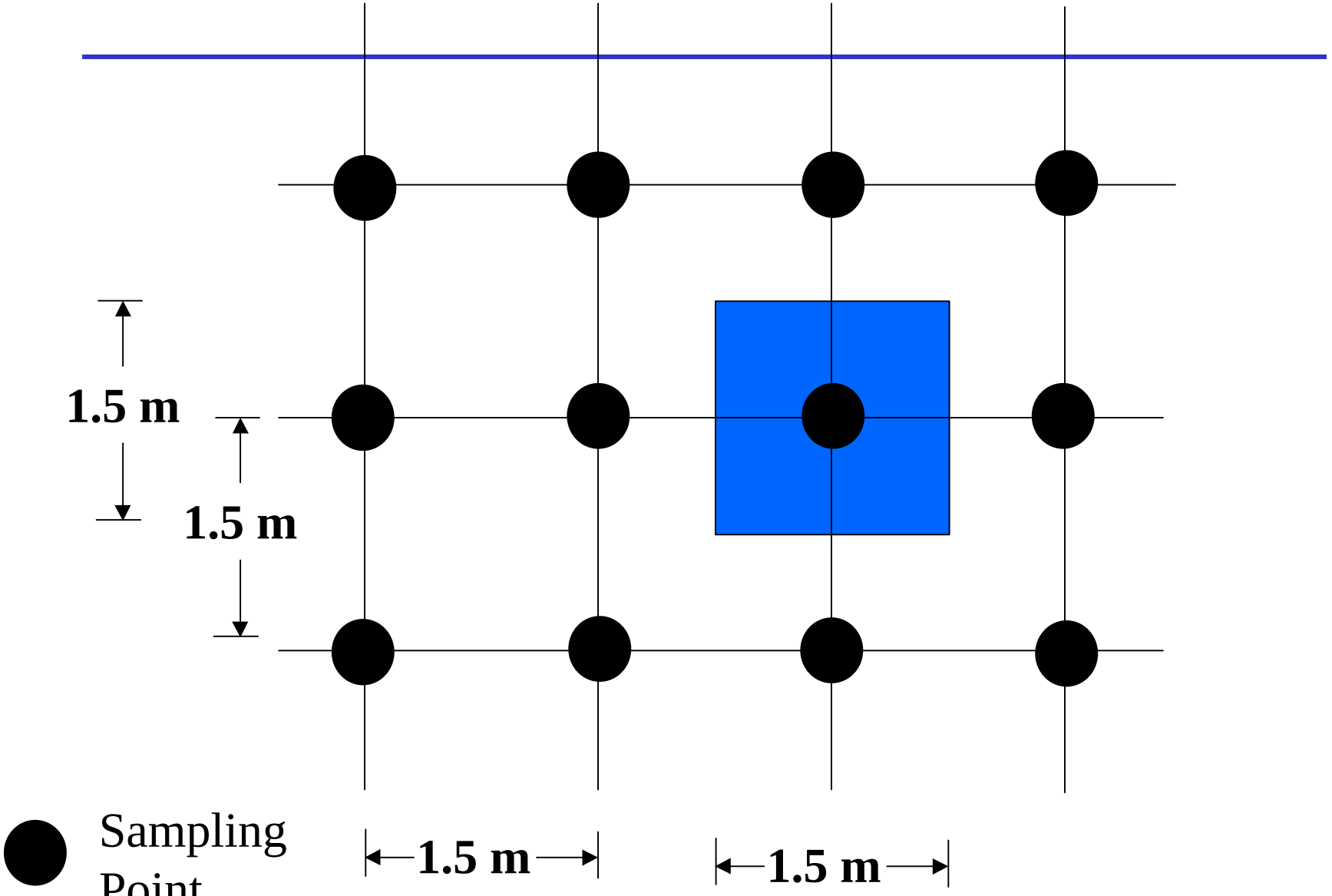
Center Grid on Remediated Area



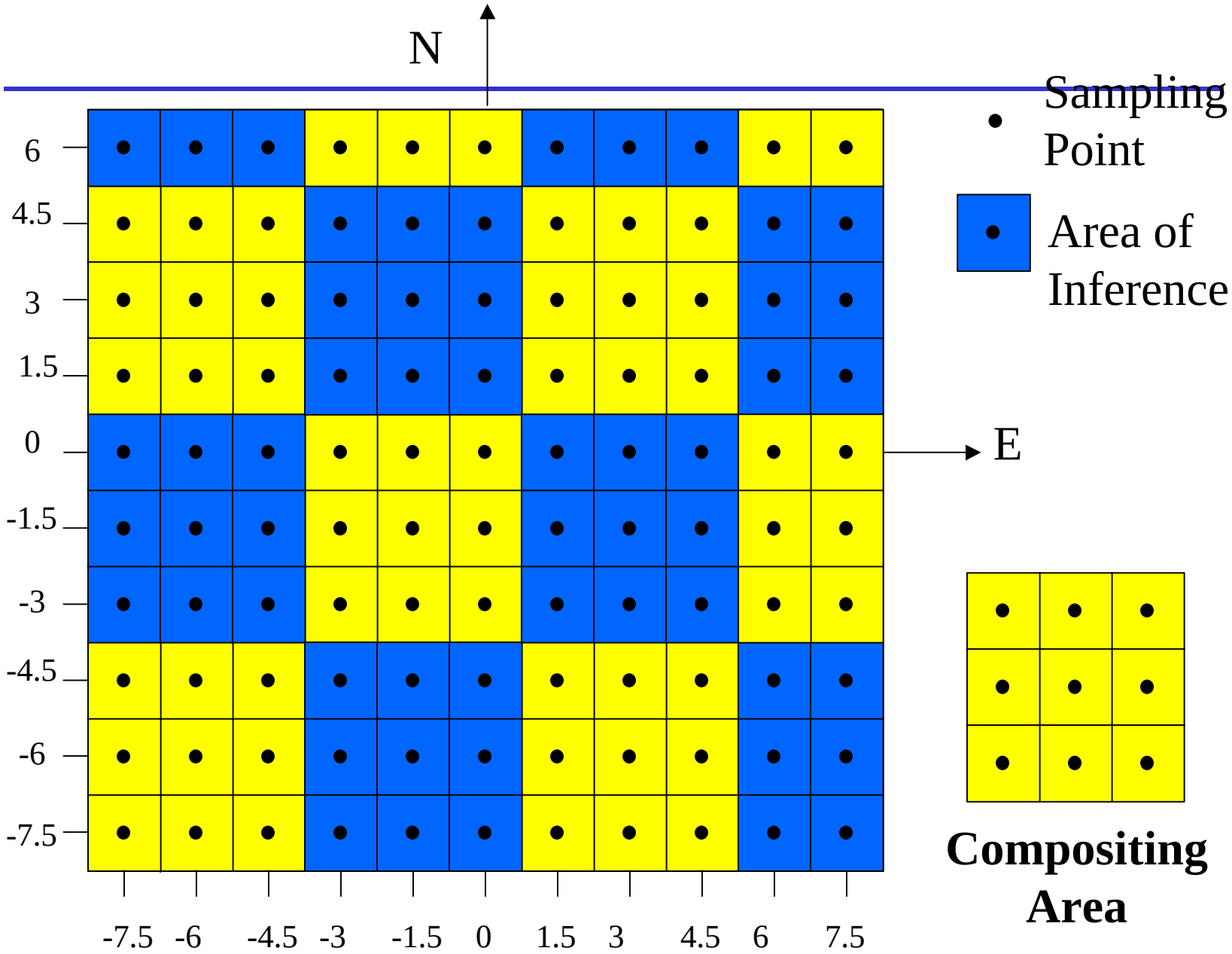
Mark Sampling Points at Intersection of Grid Lines



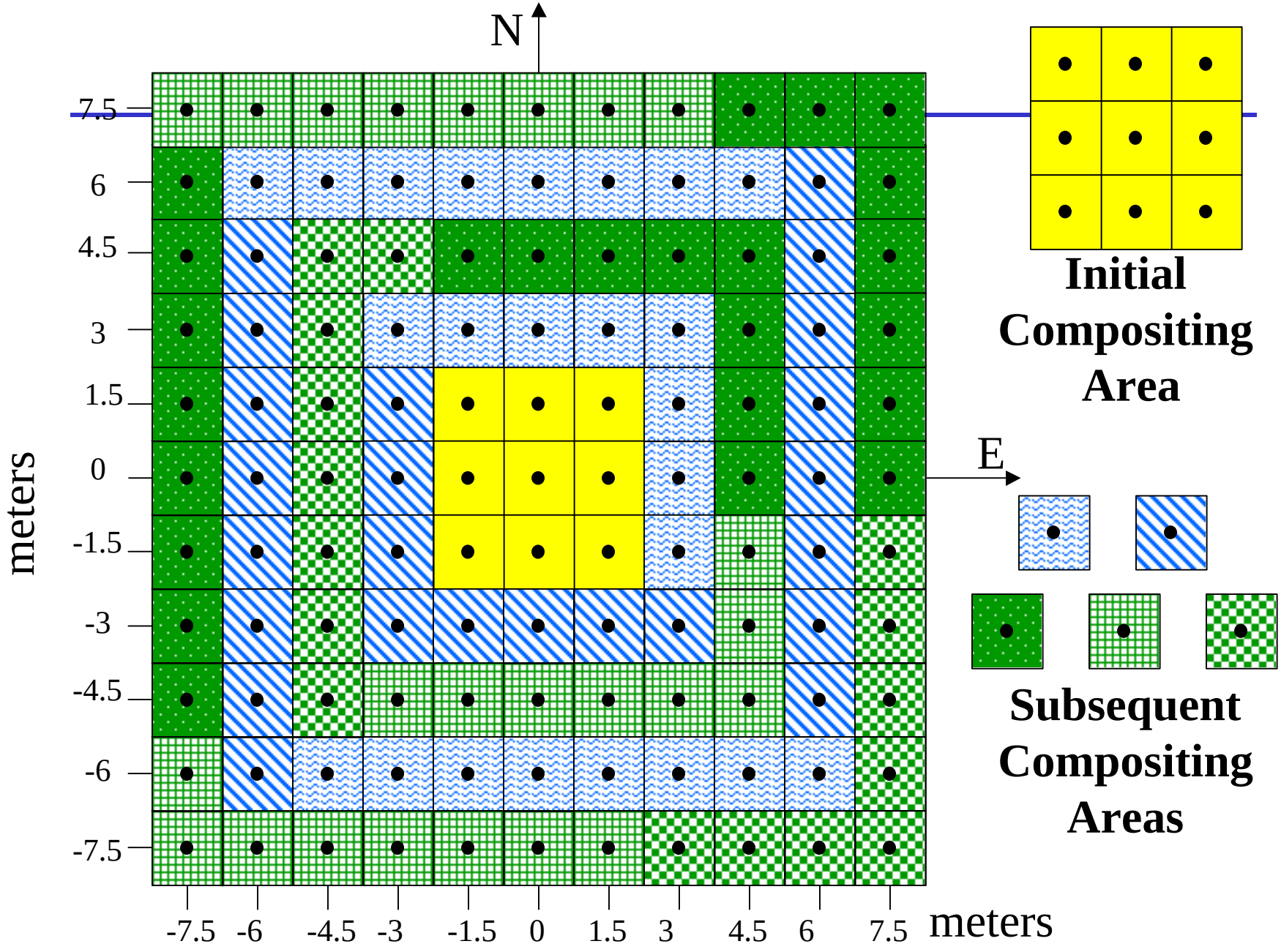
Area of Inference Around Sampling Point

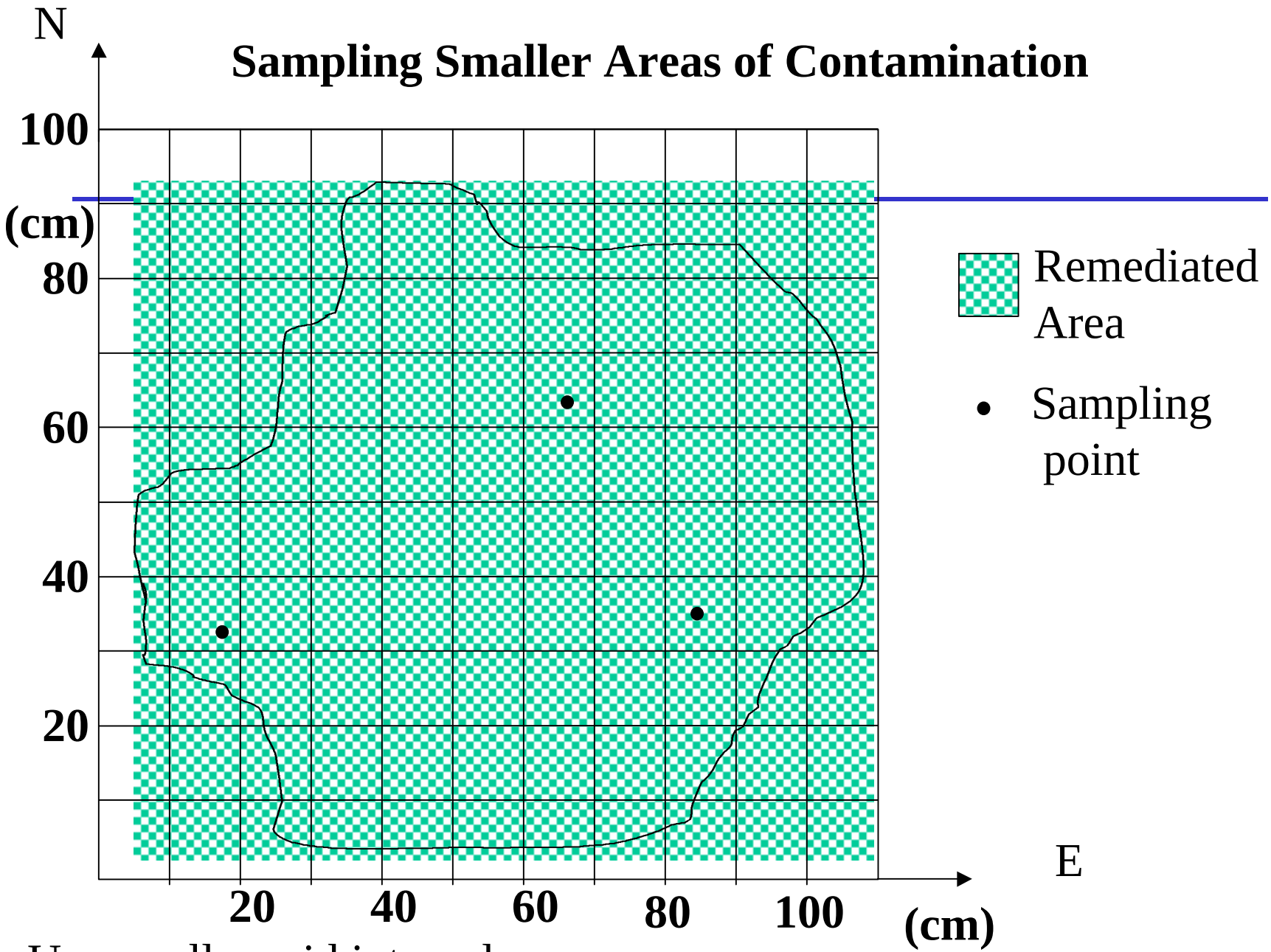


Compositing Areas: Non-point Source



Compositing Areas: Point Source



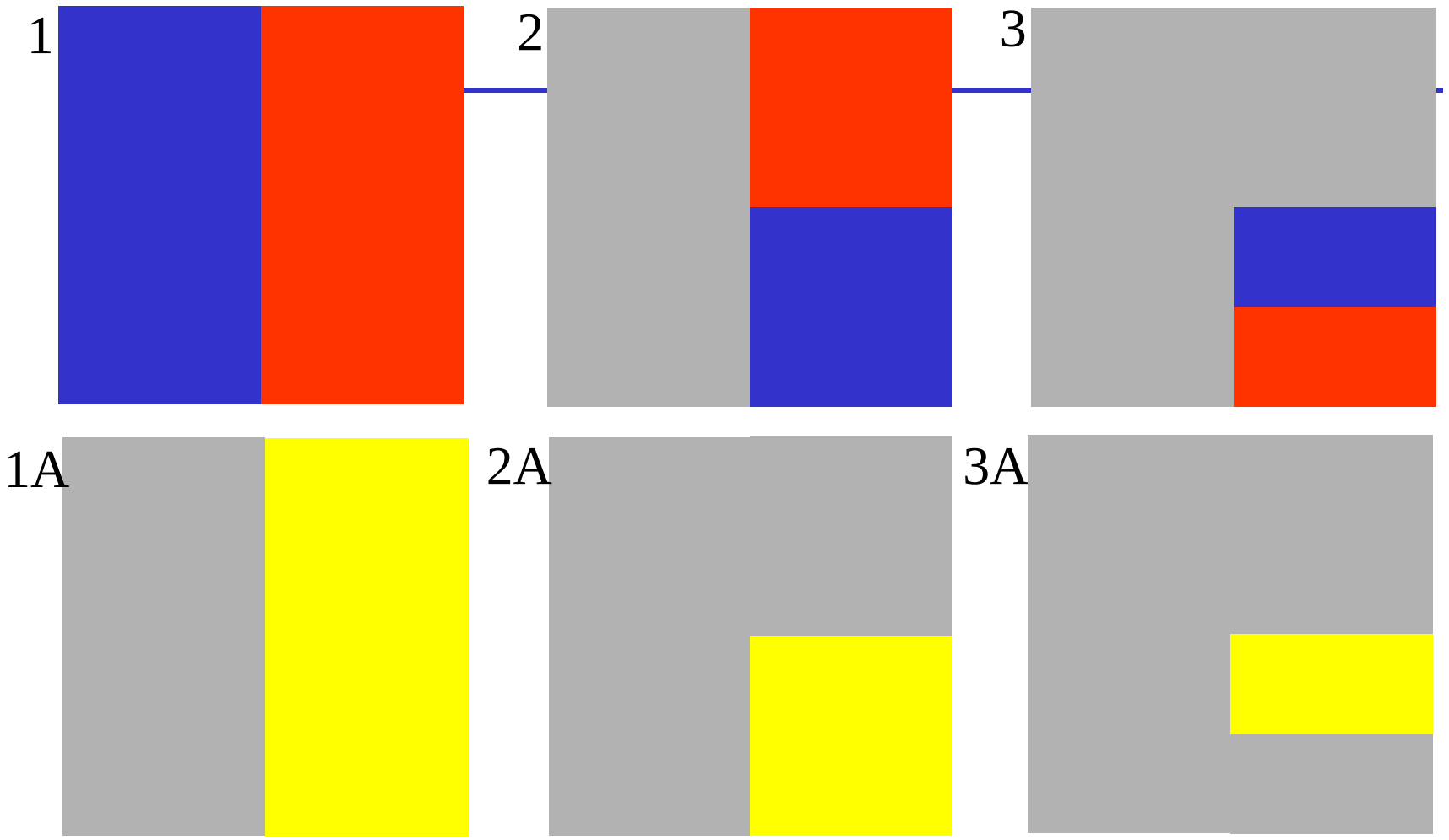


1. Use smaller grid interval
2. Use random number to identify 3 coordinates within remediated area

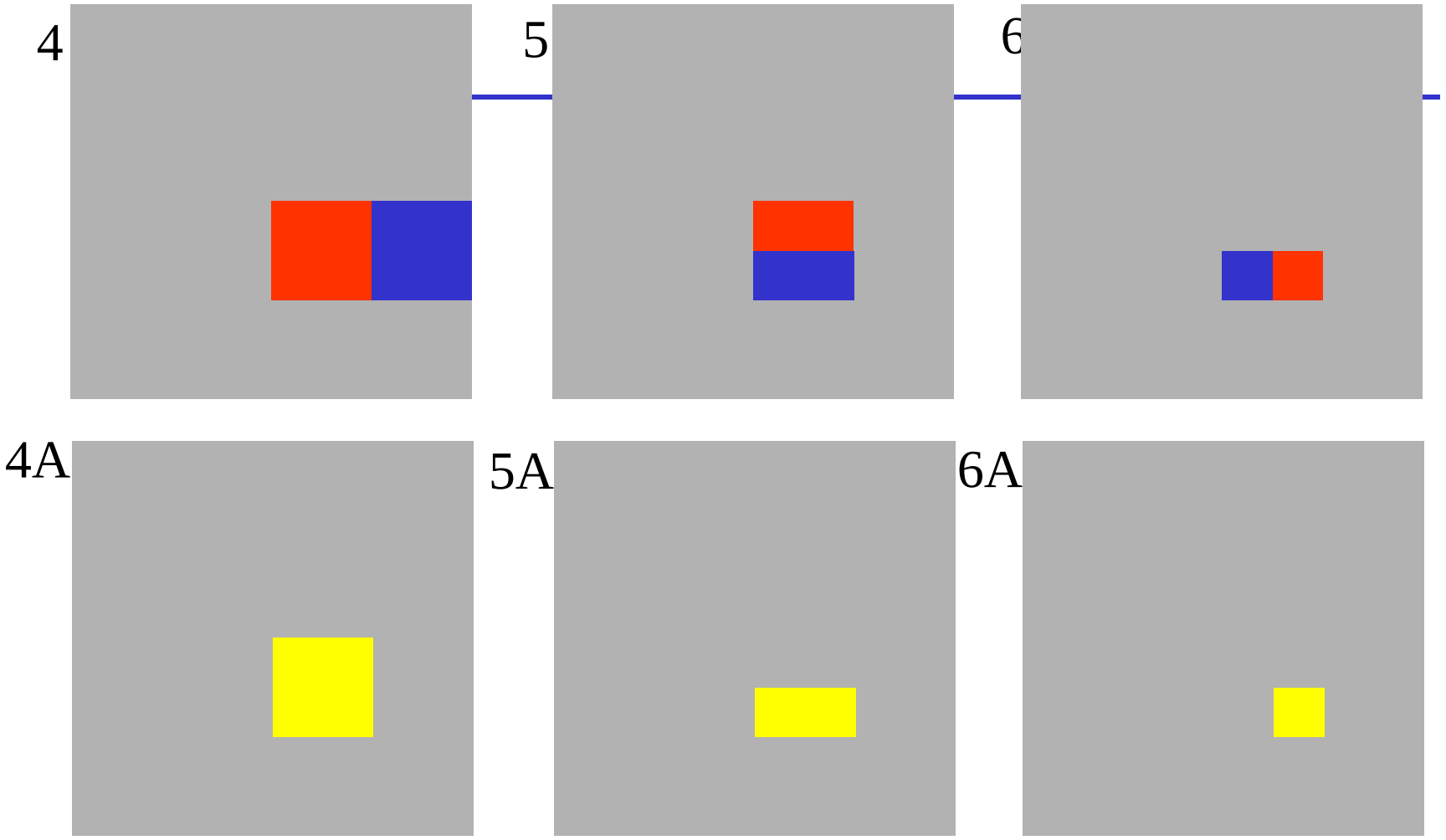
Subpart P - Sampling Non-Porous Surfaces by Halves (§761.306)

1. Divide 1 square meter area in half
2. Assign each half “heads” or “tails”
3. Flip coin
4. Select “winning side” and divide in half
5. Repeat from step 2 until selected half is >100 cm^2 and <200 cm^2

Subpart P - Sampling Non-Porous Surfaces by Halves (§761.306)

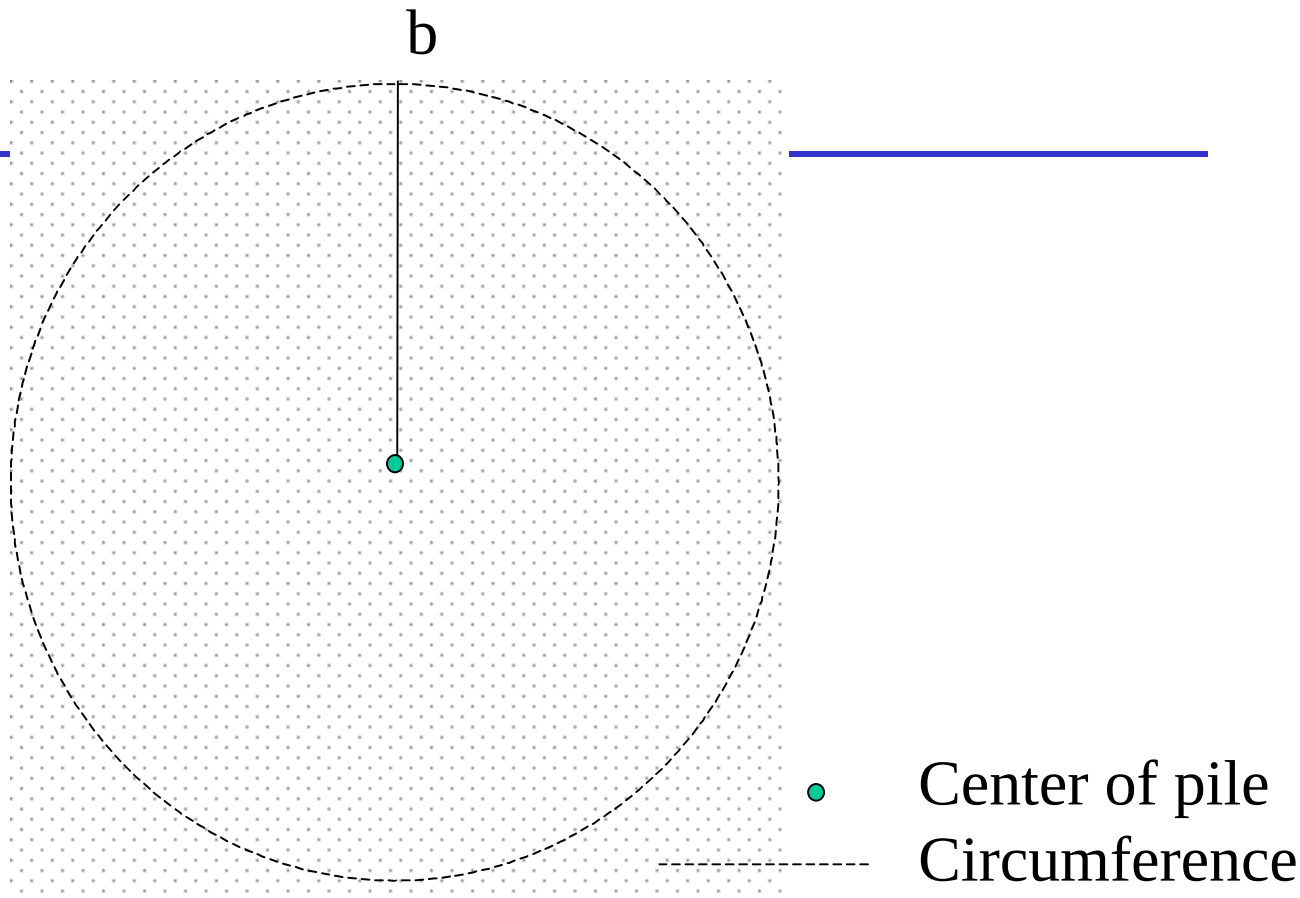


Subpart P - Sampling Non-Porous Surfaces by Halves (§761.306)



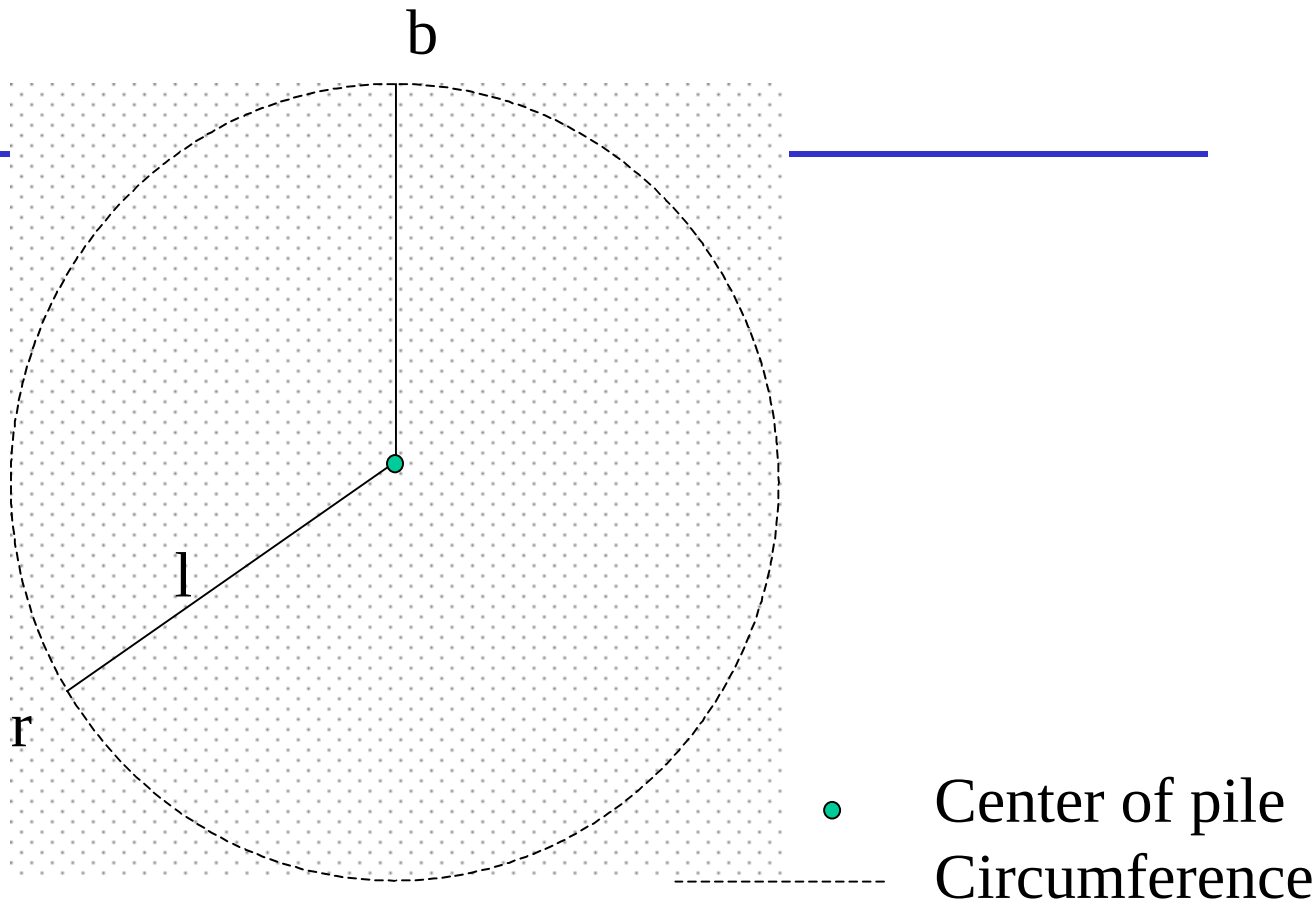
Subpart R - Sampling a Conical Pile (§761.347)

Top View



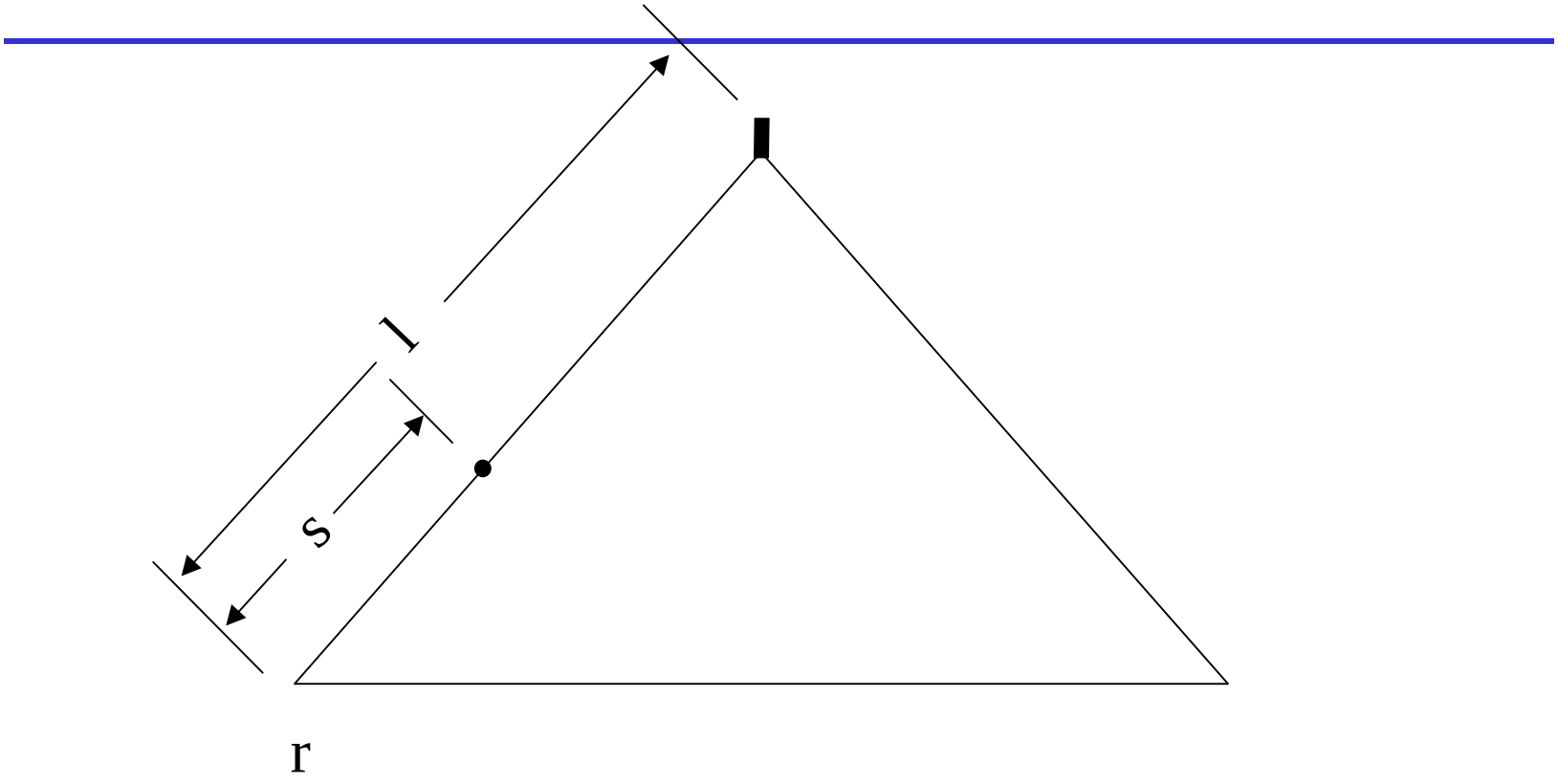
1. Mark center of pile using rod, stake, etc.
2. Run string from top of center marker to base (b)
3. Measure circumference (c) from base (b)

Top View



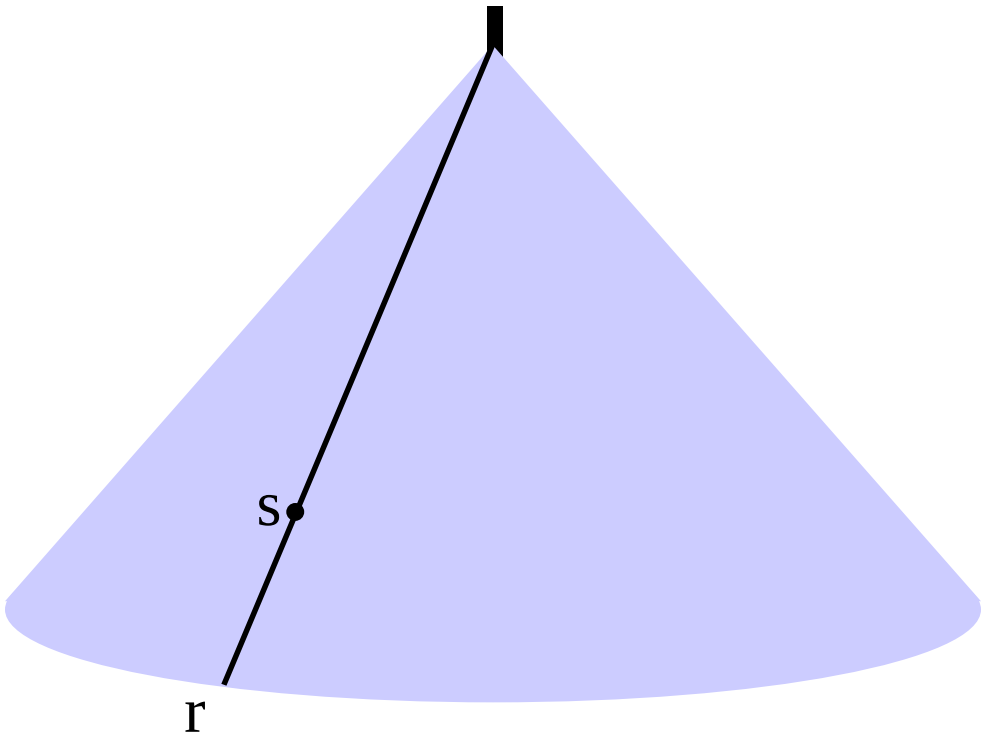
4. Find sampling radius (r) by multiplying circumference (c) by a random number
5. Run string from center marker to base at point (r)
6. Measure length (l) from center marker to base (r)

Cross Section at r

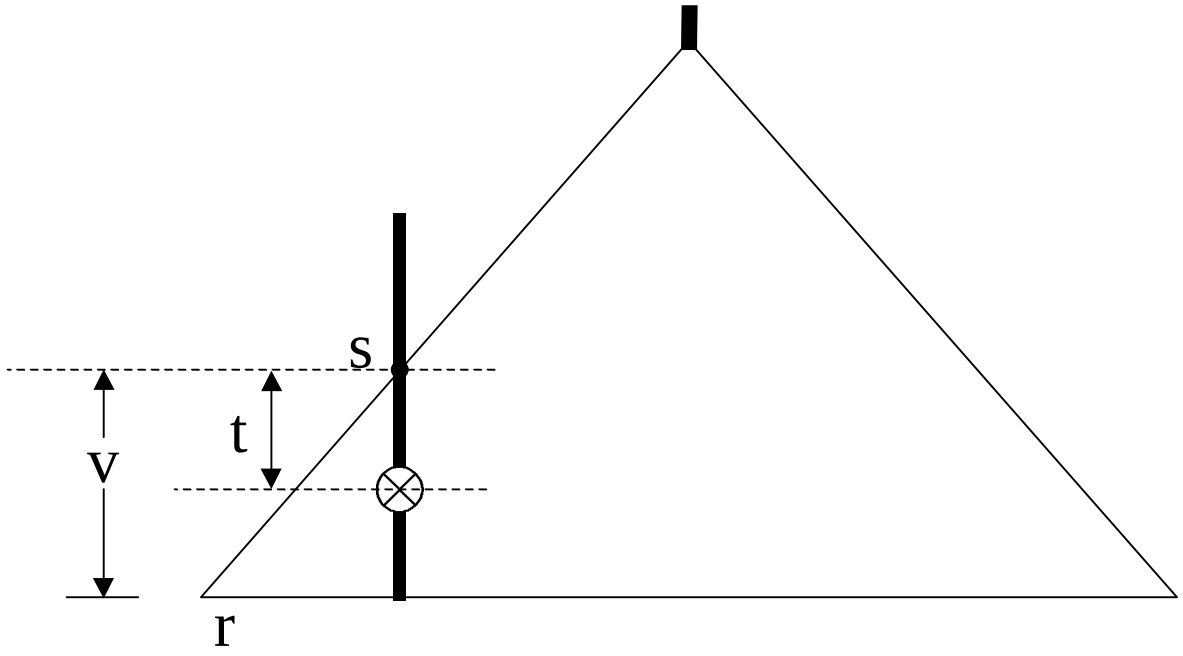


7. Find sampling length (s) by multiplying (l) by a random number
8. Starting from base (r), find point (s) on length (l)

Three Dimensional View

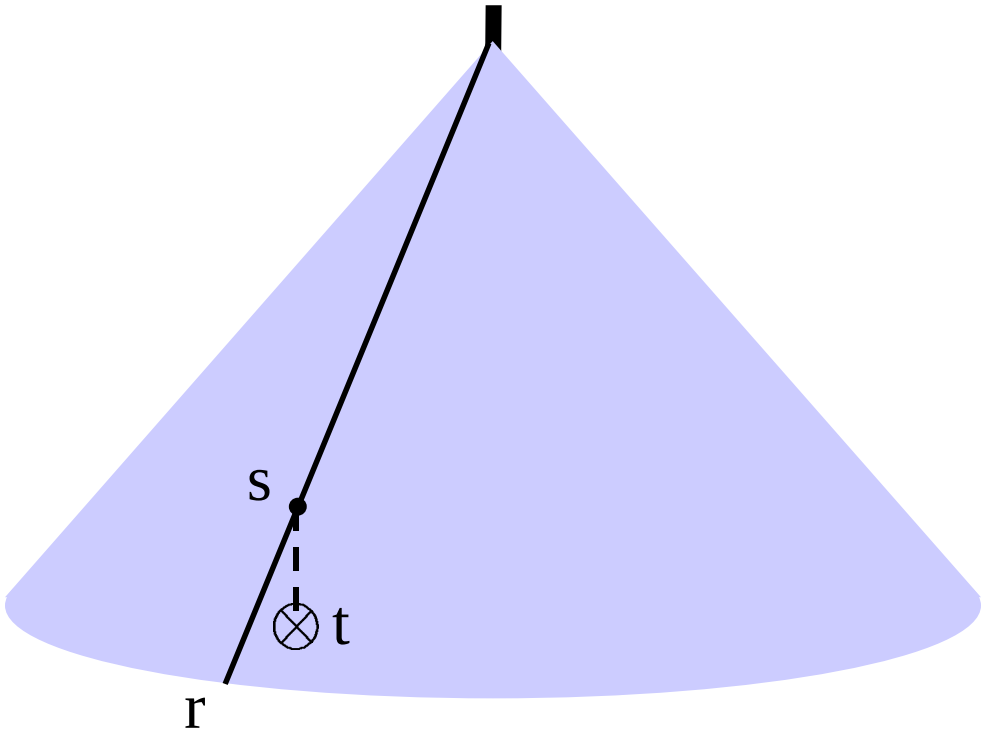


Cross Section at r



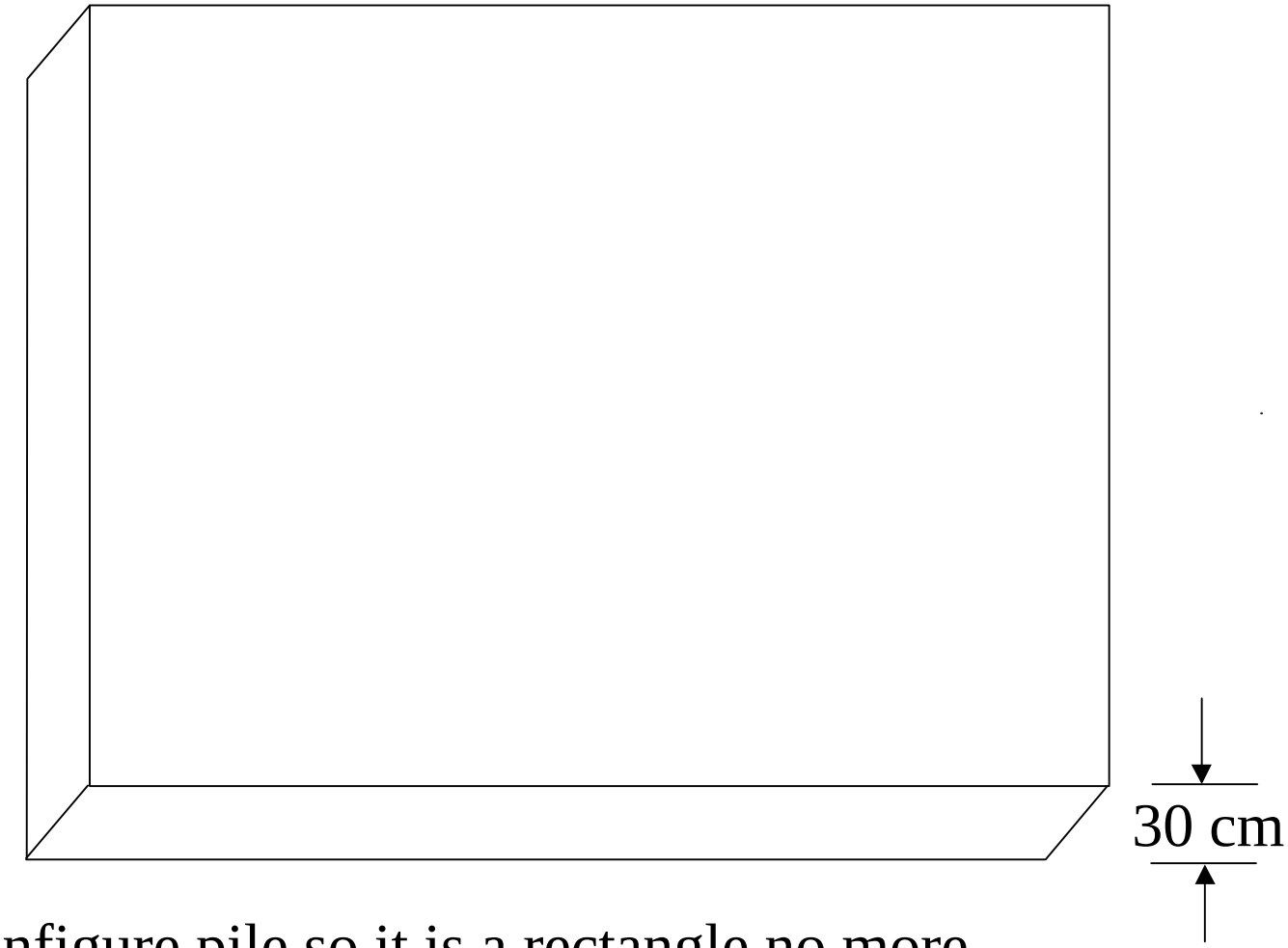
9. Determine the vertical distance (v) by inserting a rod marked in cm
10. Find sampling depth (t) by multiplying (v) by a random number
11. Take sample at point (t)

Three Dimensional View



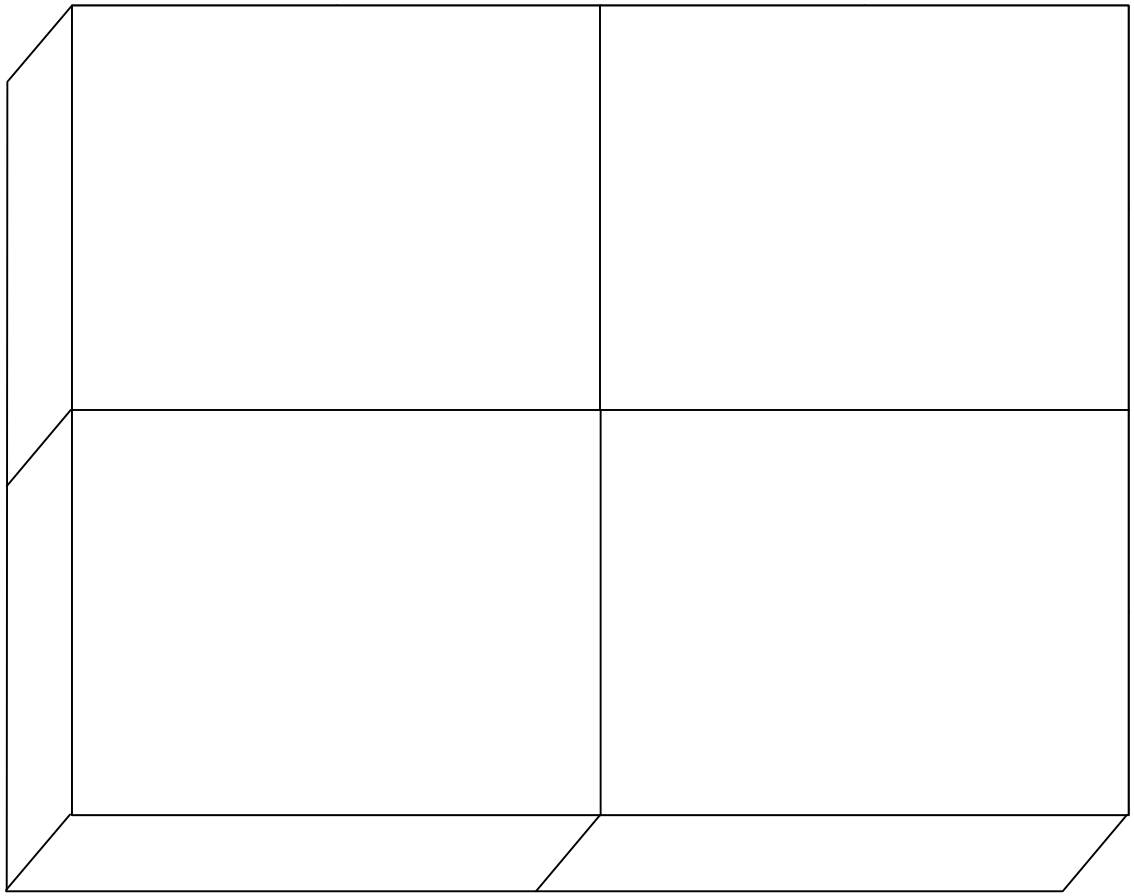
⊗ Sampling Point

Subpart R - Sampling a Specifically Configured Pile (§761.347)



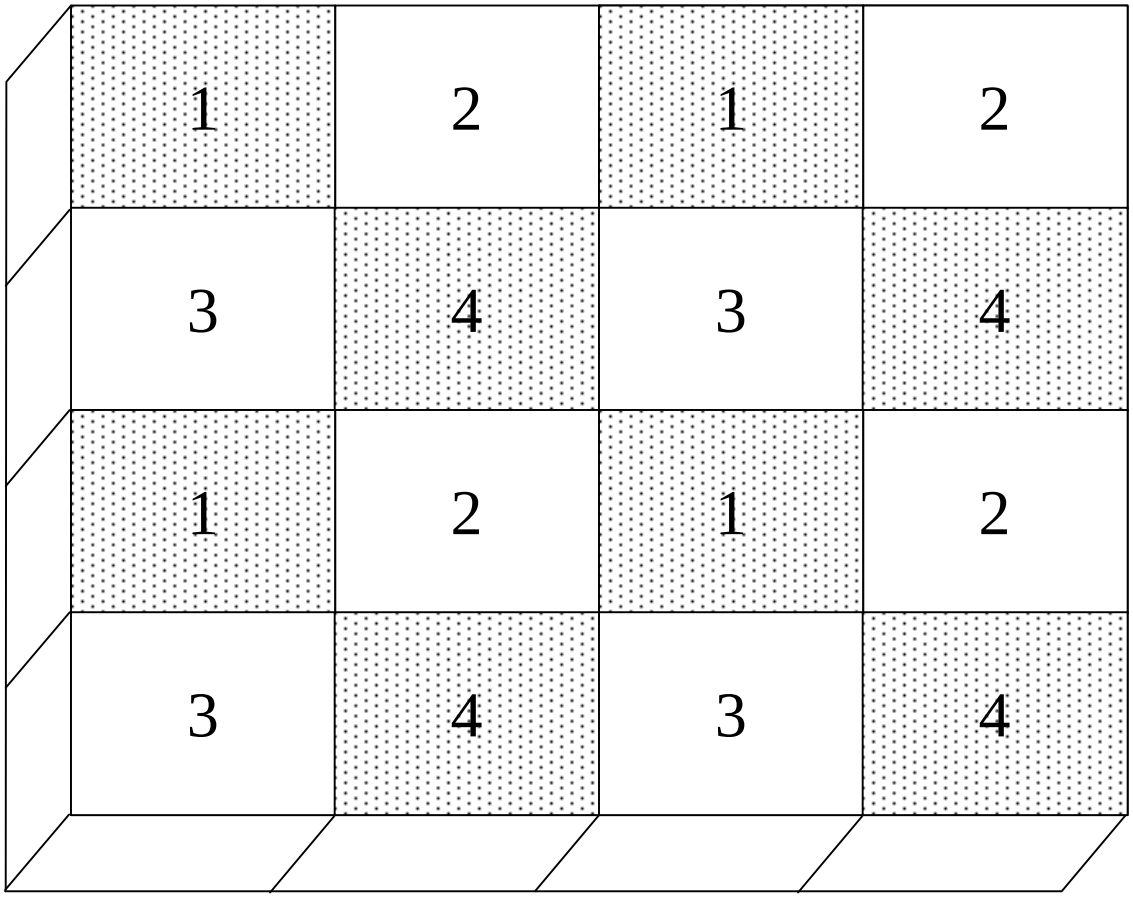
1. Configure pile so it is a rectangle no more than 30 cm (1 ft) deep

Subpart R - Sampling a Specifically Configured Pile



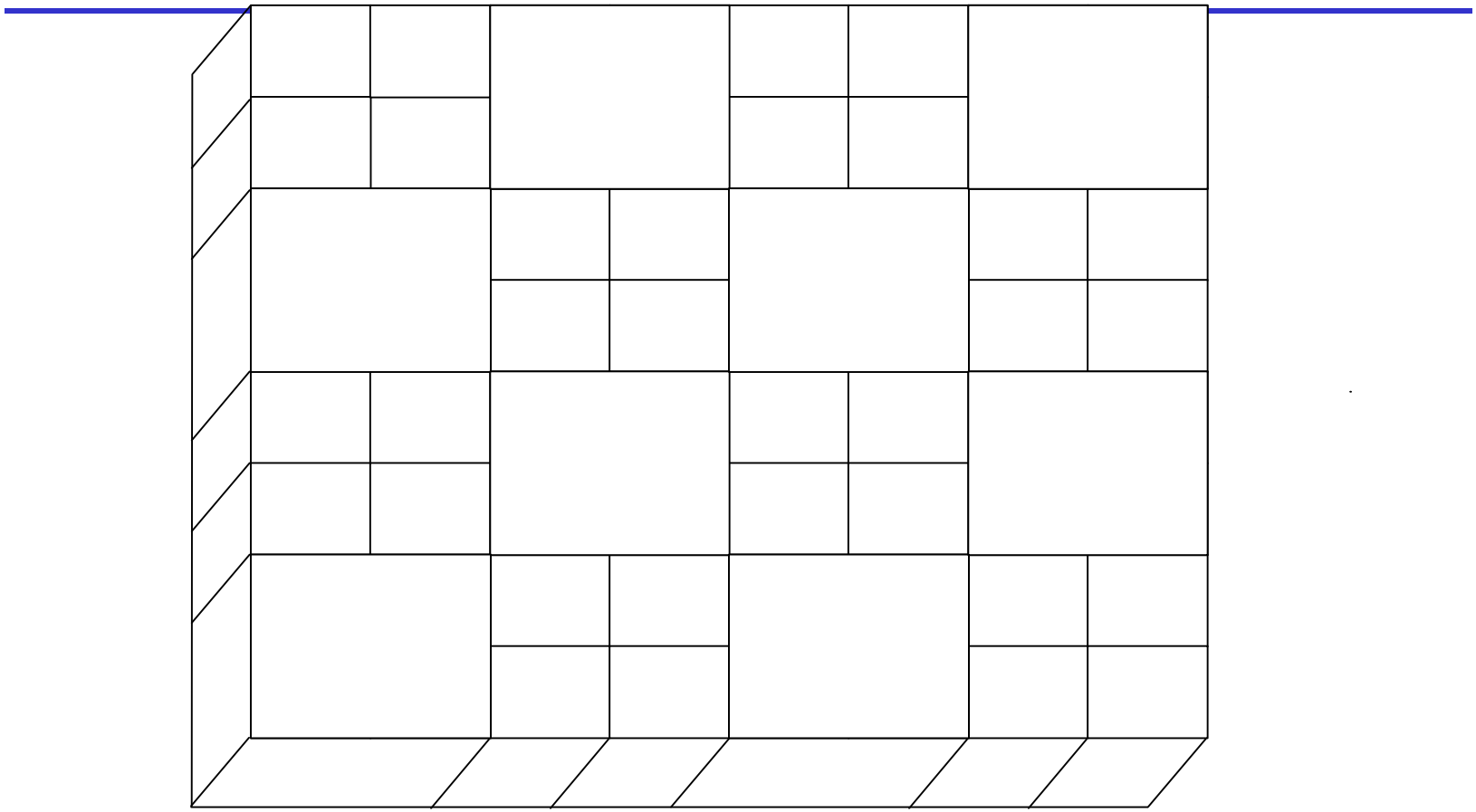
2. Divide pile into quarters

Subpart R - Sampling a Specifically Configured Pile



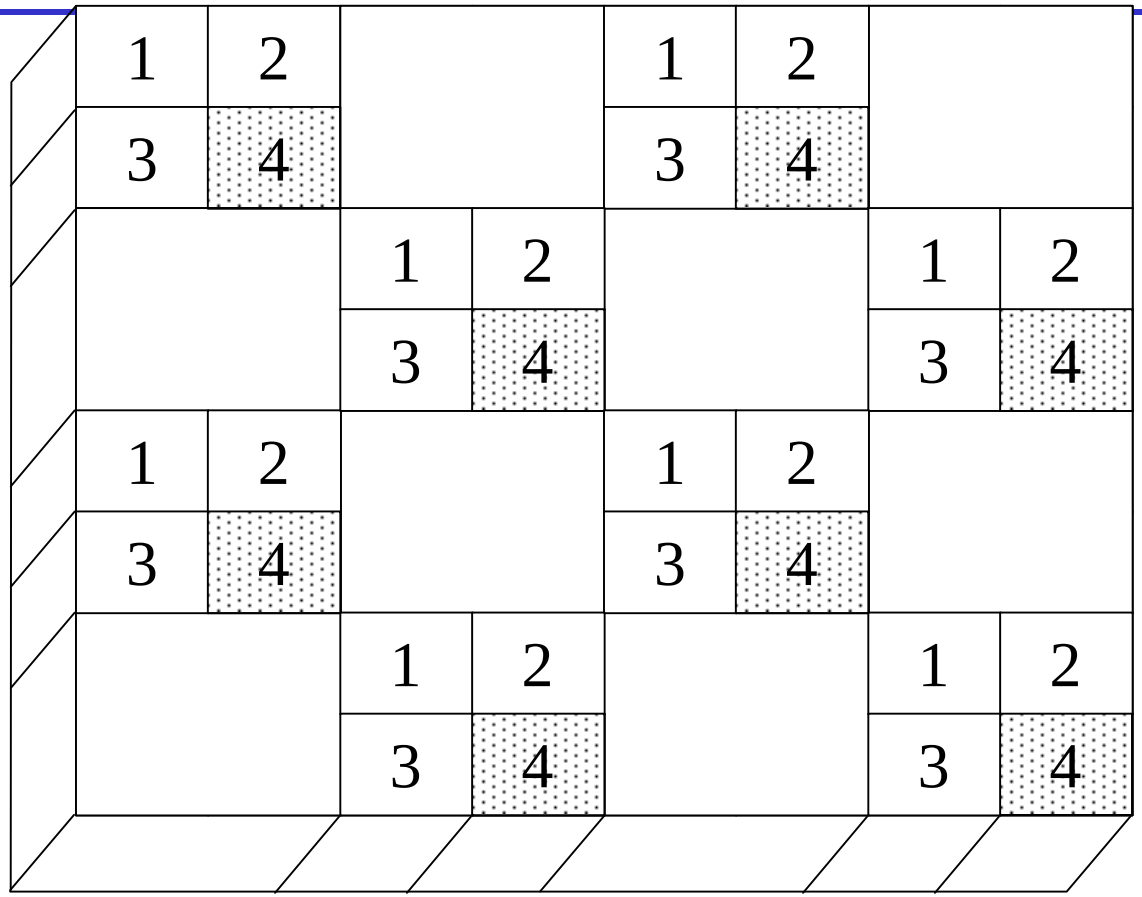
3. Divide quarters into quarters, and number from 1 to 4
4. Randomly select 2 of the 4 numbers to sample (e.g., 1 and 4)

Subpart R - Sampling a Specifically Configured Pile



5. If volume of 1/16th of the original area is greater than 76 liters, continuing dividing into quarters until volume is <76 liters but >19 liters

Subpart R - Sampling a Specifically Configured Pile



6. Number and randomly select subsection for sampling (e.g., 4)
7. Take samples in same position in each corresponding subsection
8. Composite samples